



TYPE APPROVAL

Standard Antennas
Standard VSATs

February 2017



eutelsat
COMMUNICATIONS

EUTELSAT TYPE APPROVAL

Standard Antennas

Standard VSATs

GENERAL

This list aims at providing Eutelsat customers with guidance on the selection of the most appropriate earth station equipment to access the Eutelsat capacity. Any antennas which are regularly deployed on the Eutelsat satellites may be eligible for being included in this list.

The criteria for inclusion are:

- Eutelsat is in possession of three full sets of measured RF electrical characteristics,
- The antenna's RF performance fully meets the Eutelsat requirements, as detailed in the EESS 502 and the ESOG 120, at the Type Approval date,
- There is no known record of operational problems or interference issues related to this antenna.

Inclusion in the list is a decision which pertains uniquely and ultimately to Eutelsat alone. At any moment a given antenna may be removed from the list, should Eutelsat deem necessary to do so.

For a given antenna, additional RF characteristics not explicitly listed (e.g. other operating frequency bands) can be found at the URL address of the manufacturer datasheet, if available.

Notes:

- The Type Approvals dated before February 2011 may be subject to a review of the maximum allowed EIRP for the case where the orbital adjacent satellite separation would be less or equal to 2.5°.
- The Type Approvals' validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.
- Any change to the Type Approval configuration need to be notified to Eutelsat and may be subject to further tests.
- Transmissions in the 13.75-14.00 GHz frequency band are subject to additional constraints imposed by the Radio Regulations. Antennas with diameters <1.2m are not supposed to operate in the 13.75 -14.00 GHz frequency band.

This book provides information on the antenna static systems' performance only. This performance shall not be associated with the performance of auto-pointing systems, unless the latter has been duly characterised in the conditions referenced in the following link: http://www.eutelsat.com/files/contributed/satellites/pdf/Autopointing_Antennas.pdf

January 2015



Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A001	31-07-08 Rev.1	M	Vislink Communications Ltd (T/A Advent Communications) UK	DST150 (ex. SNG140T)	Transportable 4 p. 1.5 m offset front-fed Diamond	1.5 m SNG 47.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A004	31-07-08 Rev.3	M	ERA Technology Ltd UK	15 Ku(S)	Transportable 1 or 4 p. 1.5 m offset front-fed Diamond	1.5 m SNG 52.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A005	31-07-08 Rev.1	M	ERA Technology Ltd UK	10 Ku	Transportable 1 p. 1 m offset front-fed Diamond	1.0 m SNG 48.8 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A006	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	2.4 DMK	Truckmount 1 p. 2.4 m dual offset Gregorian	2.4 m truckmount SNG 53.5 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A011	12-01-15 Rev.2	M	Vislink International Ltd (T/A Advent Communications) UK	Newswift 120 CF	Transportable 1 p. 1.2 m offset front-fed	1.2 m vehicle or flyaway For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers): 45.4 dBW / 40 KHz for an orbital separation of the adjacent satellite $\geq 2.0^\circ$, 39.3 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A012	12-01-15 Rev.2	M	Vislink International Ltd (T/A Advent Communications) UK	Newswift 150 CF	Transportable 1 p. 1.5 m offset front-fed	1.5 m vehicle or flyaway For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers): 49.3 dBW / 40 KHz for an orbital separation of the adjacent satellite $\geq 2.0^\circ$, 42.2 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$
EA-A016	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	1.5 m SMK-LT	Transportable 1 p. 1.5 m offset front-fed	1.5 m truckmount SNG 47.7 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A017	28-05-13 Rev.2	M	CTS – Cobham Technical Services UK	12 Ku Diamond	Transportable 1 p. 1.2 m offset front-fed Diamond	1.2 m SNG For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers): 48.0 dBW / 40 KHz for an orbital separation of the adjacent satellite $\geq 3.0^\circ$, 38.7 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$
EA-A018	31-07-08 Rev.2	M	Page Europa Italy	825-2020-001	Transportable foldable 4.8 m Cassegrain	4.8 m truckmount 57.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A022	31-07-08 Rev.1	M	ERA Technology Ltd UK	10KuS	Transportable 4 p. 1.0 m offset front-fed Diamond	1.0 m SNG 48.7 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A032	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	2.4 SMK-LT	Fly Away 3 p. 2.4 m front fed offset mode generator	2.4 m fly away 51.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A037	30-05-08	M	Vertex RSI General Dynamics USA	2.4 SMK-LT 4 ports feed	Fly Away 3 p. 2.4 m	2.4 m fly away 50.9 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A002	03-09-08 Rev.3	M	ASC Signal (previously Andrew Corporation) USA	ES37(MPJ)K-124W ES37-124WS	Fixed 2 p. & 3 p. 3.7 m Gregorian	3.7 m general purpose fixed station 55.0 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers)
EA-A003	31-07-08 Rev.1	M	ASC Signal (previously Andrew Corporation) UK	ESA24K-1	Fixed 1 p. 2.4 m symmetric front-fed	2.4 m fixed digital station 50.5 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A007	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	2.4 DPK	Fixed 1 p. 2.4 m dual offset Gregorian	2.4 m fixed general purpose station 52.6 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A015	03-01-13 Rev.2	M	Vertex RSI General Dynamics USA	3.80 Meter VXX 3.80 Meter PMK	Fixed 12 p. 3.8 m dual offset Gregorian Two port feed system	3.8 m fixed general purpose station 55.2 dBW / 40 kHz for satellite orbital separations $\geq 1.5^\circ$ for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers).
EA-A023	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	4.8 meter KPK	Fixed 16 p. 4.8 m dual optics Cassegrain	4.8 m fixed general purpose station 55.0 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A030	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	1m SFK-LT	Transportable 6 p. 1.0 m offset front-fed mode generator feed	1.0 m low-medium bit rates 44.1 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A039	03-01-13	M	Vertex RSI General Dynamics USA	3.80 Meter VXK 3.80 Meter PMK	Fixed 12 p. 3.8 m dual offset Gregorian Four port feed system	3.8 m fixed general purpose station 55.0 dBW / 40 kHz for satellite orbital separations ≥ 1.5° for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A024	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	4.8 meter KPC	Fixed 16 p. 4.8 m dual optics Cassegrain	4.8 m fixed general purpose station 59.8 dBW / 40kHz for digital carriers transmitted anywhere in the satellite receive contour of the C- band capacity of the Eutelsat satellites (EESS 502 § 6.1 refers)
EA-A031	31-07-08 Rev.1	M	Vertex RSI General Dynamics USA	2.4 SMC-LT	Fly Away 3 p. 2.4 m front fed offset mode generator	2.4 m fly away 54.1 dBW / 40kHz for digital carriers transmitted anywhere in the satellite receive contour of the C- band capacity of the Eutelsat satellites (EESS 502 § 6.1 refers)
EA-A036	30-05-08	M	Vertex RSI General Dynamics USA	2.4 SMC-LT 4 ports feed	Fly Away 3 p. 2.4 m	2.4 m fly away 54.7 dBW / 40kHz for digital carriers transmitted anywhere in the satellite receive contour of the C- band capacity of the Eutelsat satellites (EESS 502 § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A019	31-07-08 Rev.2	M	Maec-Visiosat France	75 Rx / Tx ANT 0141051, 0141052 or 0141053	Single piece 0.75 m offset	0.75 m fixed broadband interactive antenna 38.5 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A025	31-07-08 Rev.1	M	Maec-Visiosat France	90 DR 0141020 0141027 0141011	Visiosat 0.9 m dual offset Gregorian	0.9 m fixed broadband interactive antenna 39.1 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A028	31-07-08 Rev.1	M	Maec-Visiosat France	120 DR 0141124 0141125	Visiosat 1.2 m dual offset Gregorian	1.2 m fixed broadband interactive antenna 44.7 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-A029	31-07-08 Rev.1	M	Maec-Visiosat France	120 EMIT 0141115 0141116	Visiosat 1.2 m overmode feed offset front-fed	1.2 m fixed broadband interactive antenna 42.8 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Std	Supplier	Model	Type	Remarks*
EA-A033	02-10-08 Rev.2	M	Orbit Israel	OrSat AL -7103-Ku Mk II	3 axis stabilised single p. 1.15 m dual optics Gregorian	1.15 m antenna with single piece foam or honeycomb radome 39.3 or 41.3 ** dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

*Note: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).

** Applies to the configuration using the Orbit Integrated RF front-end



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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V056	17-05-11 Rev. 1	Mitsubishi Electric Corp. Japan	Ku Mate	Mitsubishi 1.0 m ring focus gregorian	BUC 8 Watt NJRC model NJT5118NT	1.0 m	18.4 dB/K	39.7 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V058	18-11-13 Rev.1	Cobham SATCOM, Sea Tel Products USA	5009 StdM Mk2 5012 StdM	Sea Tel Products 1.2 m 1.68 m radome	BUC Various (NJRC, Codan, Comtech) 4-8-16- 40 Watt with integrated SMW Q- PLL or NJRC LNB.	1.2 m	19.3 dB/K	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 38.0 dBW / 40 kHz for satellite orbital separation ≥ 1.5° 40.6 dBW / 40 kHz for satellite orbital separation ≥ 2°
EA-V059	16-12-11	Mitsubishi Electric Corp. Japan	SX 5410 Ku Mate	Mitsubishi 1.2 m ring focus	BUC 8 Watt NJRC model NJT5118NTME	1.2 m	20.5 dB/K	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 38.3 dBW / 40 kHz for satellite orbital separation ≥ 1.5° 41.4 dBW / 40 kHz for satellite orbital separation ≥ 2°

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V060	15-06-12	Mitsubishi Electric Corp. Japan	MVA060	Mitsubishi 0.62 m ring focus	BUC 8 Watt NJRC model NJT5118NTME	0.62 m	15.0 dB/K (parallel port) 15.5 dB/K (orthogonal port)	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 31.0 dBW / 40 kHz for satellite orbital separation $\geq 1.5^\circ$ 32.1 dBW / 40 kHz for satellite orbital separation $\geq 2.5^\circ$ 33.2 dBW / 40 kHz for satellite orbital separation $\geq 3^\circ$

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V013	31-07-08 Rev.1	TSAT AS Norway	OA1600B	Fibo 0.9 m dual offset Gregorian	Teamcom (Normarc) RFA 1188 0.1, 0.5 or 2 Watt	0.9 m	19.6 dB/K	43.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V038	31-07-08 Rev.1	Maec-Visiosat France	Visiosat 90 DR	0.90 m dual offset Gregorian	TSAT AS 0.5 Watt	0.9 m	18.1 dB/K	42.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V040	31-07-08 Rev.1	Maec-Visiosat France	75 Rx/Tx ANT 0141054	Visiosat 0.75 m offset	Skyware Radio 1216 L or 1214 S 2 Watt (EODU-003)	0.75 m	17.0 dB/K	38.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V041	31-07-08 Rev.1	Maec-Visiosat France	90 DR 0141044	Visiosat 0.9 m dual offset Gregorian	Skyware Radio 1216 L, 1214 S, 1216 EL or 1214 ES 2 Watt (EODU-003)	0.9 m	18.2 dB/K	42.1 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V042	31-07-08 Rev.2	Rockwell Collins Sweden AB (previously Swe-Dish Satellite Systems AB) Sweden	IPT SUITCASE	Rockwell Collins 0.9 m dual offset Gregorian	35 Watt CPI SSPA	0.9 x 0.66 m	19.3 dB/K	36.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V043	31-07-08 Rev.1	Maec-Visiosat France	90 EMIT 0141095	Visiosat 0.9 m offset front-fed	Invacom Radio TUL201 or TUL204 2 Watt (EODU-004)	0.9 m	18.4 dB/K	42.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V044	31-07-08 Rev.1	Maec-Visiosat France	90 EMIT 0141096	Visiosat 0.9 m offset front-fed	Skyware transceiver 1214S, 1216L or 1226L 2 Watt (EODU-003)	0.9 m	18.4 dB/K	42.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V045	31-03-09 Rev.2	Raven Manufacturing Ltd UK	G90 Tx/Rx	Raven Manufacturing Ltd 0.89 x 0.80 m offset front-fed	Invacom Radio TUL201 or TUL204 2 Watt (EODU-004)	0.89 x 0.80 m	18.0 dB/K	40.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V046	31-07-08 Rev.1	General Dynamics C4 Systems USA	1985	Prodelin 0.98 m offset front-fed	Gilat ODU 1 Watt (EODU-001 - 002)	0.98m	17.2 dB/K	43.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V052	31-07-08 Rev.1	Tele System Electronic SpA Italy	11026001 EL980X700	Tele System 0.83 m offset front-fed	Skyware Radio 1226 L, 1216 L, 1214 S or 1212 L 2 Watt (EODU-003)	0.83 m	20.0 dB/K	40.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V061	26-08-15	Skyware Global USA	62-9615401 (Type 965 Class I)	Skyware Global 0.96 m offset front-fed	LFL XPC Feed Horn, Overmode Die Cast Generator module, OMT 1 Transmit Reject Filter with Die Cast Mounting Block. Designed for installed RF power ≤ 16 Watt	0.96 m	-	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 42.9 dBW/40 kHz for satellite orbital separations 37.5 dBW/40 kHz for satellite orbital separations ≥ 2.0° 35.6 dBW/40 kHz for satellite orbital separations ≥ 1.5°

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V064	21-08-15	Skyware Global USA	62-9885811 (Type 988 Class I with Celio Transceiver)	0.98 m offset front-fed Long focal length Ka band	Integrated transceiver assembly 3 Watt Celio of Skyware Technologies in combination with the Skyware Global Ka wideband Polarizer/Feed	0.98m	22.1 dB/K	40.6 dBW / 40 kHz for digital carriers transmitted at the satellite EUELSAT 3B receive contour of 7 dB/K (EESS 502 § 6.1 refers)

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



Eutelsat Type Approval

VSAT's = 1.2 meter Ø

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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V014	31-07-08 Rev.1	TSAT AS Norway	OA1600C	Fibo 1.2 m dual offset Gregorian	Teamcom (Normarc) RFA 1188 0.1, 0.5 or 2 Watt	1.2 m	22.1 dB/K	45.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V047	31-07-08 Rev.1	General Dynamics C4 Systems USA	1135	Prodelin 1.2 m offset front-fed	Gilat ODU 1 Watt (EODU-001 - 002)	1.2 m	19.0 dB/K	45.9 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V053	31-07-08 Rev.1	Maec-Visiosat France	120 DR 0141126	Visiosat 1.2 m dual offset Gregorian	Skyware transceiver 1116L - 1 Watt 1214S, 1212L, 1216L or 1226L 2 Watt (EODU-003) 1416L - 4 Watt	1.2 m	20.8 dB/K	44.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



Eutelsat Type Approval

VSAT's = 1.2 meter Ø (cont'd)

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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V055	07-09-15 Rev.1	Skyware Global USA	62-1255401 (1.2 m RXTx Type 125 Class I 1.2 m RXTx Type 125 Class I extended band)	Skyware Global 1 p. 1.2 m Class I offset front-fed	Mode Matched (compensated) 2 ports, linear polarized feed/OMT for standard BUC/ LNB adaptation (WR 75 Flange) Designed for installed RF power ≤ 16 Watt	1.2 m	21.3 dB/K	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 44.5 dBW /40 kHz for satellite orbital separations ≥ 3.0° 42.4 dBW /40 kHz for satellite orbital separations ≥ 2.5° 38.4 dBW /40 kHz for satellite orbital separations ≥ 1.5°
EA-V057	01-06-10	Rockwell Collins Sweden AB (previously Swe-Dish Satellite Systems AB) Sweden	0.83 m X 1.2 m RxTx CCT 120-1 CCT 120-4	1.2 m dual offset Gregorian 1p. solid 4p. segmented	50 W CPI model 705543-K1314- 050SA-030 PLL LNB NJR 2536SC	0.83 x 1.2 m	21.5 dB/K	41.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



Eutelsat Type Approval

VSAT's = 1.8 meter Ø

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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V065	21-08-15	Skyware Global USA	62-1857711 (Type 185 Class III with Mode Matched Compensated Feed)	1.8m Short focal length Offset front fed	Skyware Global Mode Matched (compensated) Feed Filter and OMT assembly, 2 ports, linear polarized Designed for installed RF power ≤ 16 Watt	1.8 m	25.2 dB/K	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 36.4 dBW /4 kHz (equivalent to 46.4 dBW /40 kHz) for satellite orbital separations ≥ 1.5°

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).



Eutelsat Type Approval

VSAT's = 2.4 meter Ø

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Certif.	Dated	Applicant	Model	Antenna Type	Radio Equipment	Diam.	G/T (typ)	Authorised EIRP Density*
EA-V032	31-07-08 Rev.1	Paradigm UK	Paradigm Anasat Ku1600	Prodelin 1244 model 930, 931, 933 2.4 m offset front- fed	Anasat 2, 4, 8 or 16 Watt LNC: Anacom	2.4 m	25.3 dB/K	37.0 dBW / 4 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V036	31-07-08 Rev.1	Selex Communications S.p.A. Italy	Desnet 2000-24	Prodelin 1244 model 930, 931, 933 2.4 m offset front- fed	Sierracom 2, 4, 8 or 16 Watt LNB: Sierracom	2.4 m	27.0 dB/K	37.0 dBW / 4 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)
EA-V062	26-08-15	Skyware Global USA	62-2445202 (2.4m dual optics Ku- band)	Skyware Global 2 p. 2.4m dual optics offset gregorian	Skyware Global OMT. Designed for installed RF power ≤ 16 Watt	2.4 m	-	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 51.2 dBW/40 kHz for satellite orbital separations ≥ 1.5°
EA-V066	21-08-15	Skyware Global USA	62-2457711 (Type 245 Class III Ku Band)	Skyware Global 2 p. 2.4m offset gregorian	Skyware Global Mode Matched Feed Filter and OMT assembly Designed for installed RF power ≤ 16 Watt	2.4 m	-	For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers) 37.4 dBW /4 kHz (equivalent to 46.4 dBW /40 kHz) for satellite orbital separations ≥ 1.5°

* Notes: Authorised EIRP levels are given for locations at the satellite receive beam edge (EESS-502 § 6.1 refers).

**Applicant:**

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Certificate:

EA-A001

Antenna:

DST150
(ex. SNG140T)

Diameter:

1.5 m

Standard:

M

Approval date:

20-04-1995

Revision 1 date :

31-07-2008

System Description:

Transportable antenna for SNG applications. Offset front-fed configuration. Four piece 1.5 m diamond shape carbon fibre main reflector. Elevation over azimuth mount with tripod base and support structure. Manual pointing. Polarisation adjustment by rotation of reflector and feedsystem together. Broadband 2 port feed with waveguide switch for instant V/H switching.

Configurations:

One standard configuration.

Maximum Allowed EIRP:

47.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

14.0 - 14.5 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

45.0 dBi (typical)

Rx Gain:

44.0 dBi (typical)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>25 dB within 1 dB contour (typical)

Remarks: None

Eutelsat s.a. Type Approval Summary Sheet



Applicant:

ASC Signal Corporation
(previously Andrew Corporation)
1120 Jupiter Road Suite 102
Plano, TX 75074
USA

Tel: +1 214 291 7608
Fax: +1 274 291 7655
mailto : fred.vinezeano@cpil.com (USA)
: raymond.gree@cpil.com (Europe)

Certificate:
EA-A002**Antenna:**
ES37(MPJ)K
ES37**Diameter:**
3.7 m**Standard:**
M**Approval date:**
25-09-1995**Last revision (rev.4) date:**
03-02-2017**Last test data submitted on :**
16-10-2014

System Description:

Fixed earth station for digital and television up-linking. Symmetrical dual reflector Gregorian configuration. Two piece 3.7 m aluminium main reflector. Broadband two port feedsystem. Pedestal type mount in manual or motorisable version or pipe type mount in manual version.

Configurations:

Pipe mount (fix) : ES37 + 2LPK-37-W
Manual mount : ES37PK-1 + 2LPK-37-W
Motorisable mount, manual jacks : ES37MPK-1 + 2LPK-37-W
Motorisable mount with E-motors : ES37MPJK-1 + 2LPK-37-W

Maximum Allowed EIRP:

55.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:
14.0 - 14.5 GHz**Rx Frequency:**
10.95 - 12.75 GHz**Tx Gain:**
53 dBi (typical)**Rx Gain:**
51.5 dBi (typical)**Tx XPD:**
>35 dB within 1 dB contour**Rx XPD:**
>35 dB within 1 dB contour

Remarks:

Type Approved with diplexer DPLX-85-W for 3 ports operation

**Applicant:**

ASC Signal (previously Andrew Corporation)
The Avenue Lochgelly Fife
Lochgelly, KY5 9HG Scotland
United Kingdom

Tel: +44 1592 780 561

Fax: +44 1592 782 380

mailto: David.Geen@ascsignal.com
peter.gardner@ascsignal.com

Certificate:
EA-A003

Antenna:
ESA24K-1

Diameter:
2.4 m

Standard:
M

Approval date:
09-01-1996

Revision 1 date:
31-07-2008

System Description:

Fixed earth station for low and medium rate digital traffic; particularly suited for VSAT applications. Symmetrical front-fed configuration. Single piece 2.4 m aluminium main reflector. Broadband two port feedsystem. Pedestal type mount in manual version only.

Configurations:

One standard configuration ESA24K-1. Optional Cross-axis Waveguide Kit compulsory for type approved configuration. Package with matching 80K LNA available as ES24K-1-2.

Maximum Allowed EIRP:

50.5 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers)

Tx Frequency:
12.75 - 14.50 GHz

Rx Frequency:
10.95 - 12.75 GHz

Tx Gain:
48.5 dBi (typical)

Rx Gain:
47.5 dBi (typical)

Tx XPD:
>35 dB within 1 dB contour

Rx XPD:
>35 dB within 1 dB contour

Remarks: None

**Applicant:**

ERA Technology Limited
Cleeve Road
Leatherhead, Surrey
KT22 7SA
United Kingdom

Tel: +44 1372 367 033
Fax: +44 1372 367 138
mailto: vlad.stojilkovic@era.co.uk

Certificate:
EA-A004**Antenna:**
15Ku(S)**Diameter:**
1.5 m**Standard:**
M**Approval date:**
24-01-1996**Revision 1 date:**
24-01-1996**Revision 2 date:**
20-12-2001**Revision 3 date:**
31-07-2008**System Description:**

Transportable antenna for SNG applications. Offset front-fed configuration. Single piece 1.5 m diamond shape reflector manufactured by two carbon fibre moulded components. Four piece ("S" version) 1.5 m diamond shape carbon fibre main reflector. Several mount and feed-chain options available.

Configurations:

According to the following expressions: 15Ku-Bxx-Fyy or 15KuS-Mxx-Fyy, where:

B01-B05: different fixed and foldable mounts for single piece reflector

M01-M03: different fixed and foldable mounts for four piece reflector.

Maximum Allowed EIRP:

52.0 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

46.0 dBi (typical)

Rx Gain:

43.7 dBi (typical)

Tx XPD:

>35 dB within 0.2° cone

Rx XPD:

>25 dB within 0.2° cone

Remarks:

F01: Feed chain with rotating joint

F02: Fixed feed chain, rotation of antenna for polarisation adjustment.

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

ERA Technology Limited
Cleeve Road
Leatherhead, Surrey
KT22 7SA
United Kingdom

Tel: +44 1372 367 033
Fax: +44 1372 367 138
mailto: vlad.stojilkovic@era.co.uk

Certificate:
EA-A005**Antenna:**
10Ku**Diameter:**
1.0 m**Standard:**
M**Approval date:**
10-03-1997**Revision date:**
31-07-2008

System Description:

Transportable antenna for digital and analogue SNG applications. Offset front-fed configuration. Single piece 1.0 m diamond shape aluminium main reflector. Several mount and feed-chain options available. dsfgh

Configurations:

According to the following expression: 10Ku-Bxx-Fyy,

where:

B01, B02: fixed and foldable mounts

F01, F02: narrow-band OMT resp. wide-band OMT.

Maximum Allowed EIRP:

48.8 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.0 - 14.5 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

42.8 dBi (typical)

Rx Gain:

41.0 dBi (typical)

Tx XPD:

>35 dB within 0.2° cone

Rx XPD:

>25 dB within 0.2° cone

Remarks: None

**Applicant:**

Vertex RSI.
General Dynamics C4 Systems
2600 North Longview Street
Kilgore TX 75662
United States

Tel: +1 903 988 6107
Fax: +1 903 988 6867
Mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A006

Antenna:
2.4 DMK

Diameter:
2.4 m.

Standard:
M

Approval date:
10-12-1997

Revision 1 date:
31-07-2008

System Description:

Transportable truckmount antenna for analogue SNG applications. Offset dual reflector configuration. Single piece 2.4 m aluminium main reflector. One Rx port and one Tx port. Fully motorised mount.

Configurations:

One standard configuration

Maximum Allowed EIRP:

53.5 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

49.0 dBi (typical)

Rx Gain:

47.3 dBi (typical)

Tx XPD:

>35 dB

Rx XPD:

>35 dB

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

Vertex RSI.
General Dynamics C4 Systems
2600 North Longview Street
Kilgore TX 75662
United States

Tel: +1 903 988 6107
Fax: +1 903 988 6867
Mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A007

Antenna:
2.4 DPK

Diameter:
2.4 m

Standard:
M

Approval date:
10-12-1997

Revision 1 date:
31-07-2008

System Description:

Fixed earth station for low and medium rate digital traffic. Offset dual reflector configuration. Single piece 2.4 m aluminium main reflector. One Rx and one Tx port. Pedestal type mount, manual version only.

Configurations:

One standard configuration. Hot air de-icing option.

Maximum Allowed EIRP:

52.6 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

48.7 dBi (typical)

Rx Gain:

47.3 dBi (typical)

Tx XPD:

>35 dB

Rx XPD:

>35 dB

Remarks: None

**Applicant:**

VISLINK International Ltd
27 Maylands Avenue
Hemel Hempstead
Hertfordshire, HP2 7DE
United Kingdom

Tel :+ 44 (0) 1442 431 300
Fax :+44 (0) 1442 431 301

Website: www.vislink.com
mailto: chris.dalton@vislink.com

Certificate:

EA-A011

Antenna:

Newswift 120 CF

Diameter:

1.2 m

Standard:

M

Approval date:

22-10-1999

Revision 1 date:

31-07-2008

Revision 2 date:

12-01-2015

System Description:

General purpose earth station for analogue and digital transmission. Offset fed, prime focus configuration. Carbon fibre main reflector. Two port OMT with compensated feed.

Models Available:

Vehicle or flyaway.

Maximum Allowed EIRP for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 refers):

45.4 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 2.0^\circ$

39.3 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

43.4 dBi (typical at 14.25 GHz)

Rx Gain:

41.4 dBi (typical at 11.7 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks:

1-The authorization to operate the terminal is conditioned to the approval to access the Eutelsat S.A. Space Segment (ref. <http://www.eutelsat.com/satellites/pdf/esog110.pdf> ESOG 110).

2-The Newswift 120 CF can be equipped with 1:1 combined HPA (400 Watt maximum).

3-The Type Approval validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.

4-Any change to the characterised configuration needs to be notified to Eutelsat and may be subject to further tests.

5-The above type approval is valid for the static system. The verification of the auto-pointing performance has not been concluded yet.

6-The most recent test data is dated 26-02-2013.

**Applicant:**

VISLINK International Ltd
27 Maylands Avenue
Hemel Hempstead
Hertfordshire, HP2 7DE
United Kingdom

Tel :+ 44 (0) 1442 431 300
Fax :+44 (0) 1442 431 301

Website: www.vislink.com
mailto: chris.dalton@vislink.com

Certificate:

EA-A012

Antenna:

Newswift 150 CF

Diameter:

1.5 m

Standard:

M

Approval date:

22-10-1999

Revision 1 date:

31-07-2008

Revision 2 date:

12-01-2015

System Description:

General purpose earth station for analogue and digital transmission. Offset fed, prime focus configuration. Carbon fibre main reflector. Two port OMT with compensated feed.

Models Available:

Vehicle or flyaway.

Maximum Allowed EIRP for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 refers):

49.3 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 2.0^\circ$

42.2 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

45.3 dBi (typical at 14.25 GHz)

Rx Gain:

43.4 dBi (typical at 11.7 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks:

- 1-The authorization to operate the terminal is conditioned to the approval to access the Eutelsat S.A. Space Segment (ref. <http://www.eutelsat.com/satellites/pdf/esog110.pdf> ESOG 110).
- 2-The Newswift 150 CF can be equipped with 1:1 combined HPA (400 Watt maximum).
- 3-The Type Approval validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.
- 4-Any change to the characterised configuration needs to be notified to Eutelsat and may be subject to further tests.
- 5-The above type approval is valid for the static system. The verification of the auto-pointing performance has not been concluded yet.
- 6-The most recent test data is dated 29-05-2013.

**Applicant:**

GENERAL DYNAMICS
SATCOM Technologies
2600 N. Longview Street
Kilgore, TX 75662
United States
Tel : +1 903 988 6107
Fax :+1 903 984 6867
[Website : www.gdsatcom.com](http://www.gdsatcom.com)

Contact point: alan.pollard@gdsatcom.com

Certificate:
EA-A015

Antenna:
3.80 Meter VXK
3.80 Meter PMK

Diameter:
3.8 m

Standard:
M

Approval date:
12-01-2001

Revision 2 date:
03-01-2013

System Description:

General purpose antenna for digital transmission up to higher rates. Dual offset Gregorian configuration. Bolt-together 12 panels 3.8 m aluminum main reflector. Broadband two port feed system. Pipe type mount in manual (PMK) or motorizable (VXK) version.

Models Available:

Two-port linear polarization feed

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):
55.2 dBW / 40 kHz for satellite orbital separations $\geq 1.5^\circ$

Tx Frequency:

13.75 - 14.50 GHz

Tx Gain:

53.2 dBi (typical at 14.25 GHz)

Tx XPD:

>35 dB within -1 dB contour

Rx Frequency:

10.70 - 12.75 GHz

Rx Gain:

51.3 dBi (typical at 11.70 GHz)

Rx XPD:

>35 dB within -1 dB contour

G/T: 29.9 dB/K at 11.70 GHz for a 70° K LNA @
30° Elevation

Remarks:

- 1-The type approval tests were performed on the long test range of General Dynamics in Kilgore, Texas between the 4 and 14 June 2012.
- 2-The type approval's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.
- 3-Any change to the type approved configuration needs to be notified to Eutelsat and may be subject to further tests.
- 4-The impact of the de-ice system on the RF performance of the antenna has not been tested.
- 5-For the four port Ku band configuration, refer to EA-A039.

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

Vertex RSI
General Dynamics C4 Systems
2600 North Longview Street
Kilgore, TX 75662
USA

Tel: +1 903 988 6107
Fax: +1 903 988 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A016**Antenna:**
1.5 – meter SMK-LT**Diameter:**
1.5 m**Standard:**
M**Approval date:**
12-01-2001**Revision 1 date:**
31-07-2008

System Description:

Transportable truck mount antenna for analogue and digital SNG applications. Offset fed, prime focus configuration. Carbon fibre reflector. Two ports OMT with compensated feed.

Models Available:

One standard foldable configuration to be installed on vehicles.

Maximum Allowed EIRP:

47.7 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 – 12.75 GHz

Tx Gain:

45.7 dBi (typical at 14.25 GHz)

Rx Gain:

44.5 dBi (typical at 12.75 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>25 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

CTS – Cobham Technical Services
Cleeve Road
Leatherhead, Surrey
KT22 7SA
United Kingdom

Tel: +44 1372 367 175
Fax: +44 1372 367 199

Website : <http://www.cobham.com>
mailto: vlad.stoiljkovic@cobham.com

Certificate:
EA-A017

Antenna:
12Ku Diamond

Diameter:
1.2 m

Standard:
M

Approval date:
22-12-2000

Revision 1 date:
31-07-2008

Revision 2 date:
28-05-2013

System Description:

Transportable antenna for SNG applications. Offset front-fed configuration. One piece 1.2 m diamond shape. Metalized Carbon Fibre reinforced Plastic reflector. One mount and two feed chain options available.

Models Available:

According to the following expressions: 12 Ku Diamond Fxx.

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 refers):
48.0 dBW / 40 KHz for an orbital separation of the adjacent satellite $\geq 3.0^\circ$ see 3
48.0 dBW / 40 KHz for an orbital separation of the adjacent satellite $\geq 2.5^\circ$ see 3
47.8 dBW / 40 KHz for an orbital separation of the adjacent satellite $\geq 2.0^\circ$ see 3
38.7 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$

Tx Frequency:
13.75 - 14.50 GHz

Rx Frequency:
10.70 - 12.75 GHz

Tx Gain:
44.0 dBi (typical at 14.25 GHz)

Rx Gain:
42.0 dBi (typical at 11.70 GHz)

Tx XPD:
>32.5 dB within -1 dB contour

Rx XPD:
>22 dB within -1 dB contour

Remarks and conditions:

- 1- F01: Feed Chain with rotating joint
F02: Fixed feed chain, rotation of antenna for polarization alignment
- 2- Submission on at least a yearly basis of measurement results for at least one production unit.

Restrictions:

- 1- The maximum authorized eirp density of the F01 model, is set to 44 dBW/40 KHz at the satellite receive contour of 0 dB/K for operations in regions where the geometric polarization angle exceeds $\pm 30^\circ$ for the targeted satellite if the antenna is not rotated.

**Applicant:**

Page Europa
Via del Serafico 200
00142 Roma
Italy

Tel: +39 06 50 39 52 97
Fax: +39 06 50 39 53 35
mailto: marino.capurso@pageuropa.it

Certificate:
EA-A018

Antenna
825-2020-001

Diameter:
4.8 m

Standard:
M

Approval date:
18-10-2002

Revision 1 date:
21-02-2003

Revision 2 date:
31-07-2008

System Description:

Transportable Earth Station based on PAGE EUROPA 4.8 m Cassegrain antenna model 825-2020-001, with ERA feed subsystem.

Configurations:

One standard configuration.

Maximum Allowed EIRP:

57.4 dBW / 40 KHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

55.4 dBi (typical at 14.25 GHz)

Rx Gain:

54 dBi (typical at 12.50 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>35 dB within 1 dB contour

Remarks:

- 1) The feed subsystem is manufactured with a spinning machine by ERA Technology Ltd.
- 2) The sub-reflector is positioned with respect to the main reflector and the feed by four struts, the length of which was calibrated once for all in factory. Each strut is identified and positioned in only one way with respect to the main and sub-reflectors by means of color codes and one pin.

**Applicant:**

MAEC-VISIOSAT
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto: olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-A019

Antenna:
75 Rx/Tx ANT
0141051
0141052
0141053

Diameter:
0.75 m

Standard:
M

Approval date:
22-11-2002

Revision 1 date:
13-01-2004

Revision 2 date:
31-07-2008

System Description:

Broadband Interactive Earth Station based on VISIOSAT 0.75 m offset front fed antenna T.N. 0141051/2/3.

Models Available:

Version 0141051 with VICTORY OMT and AZ EL mount with polarisation adjustment.
Version 0141052 with INVACOM OMT LNB included and AZ EL mount with polarisation adjustment.
Version 0141053 with ASC Signal OMT and AZ EL mount with polarisation adjustment.

Maximum Allowed EIRP:

38.5 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz (OMT Victory)
14.00 - 14.50 GHz (OMT Invacom and
ASC Signal)

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

39 dBi (typical at 14.25 GHz)

Rx Gain:

37.5 dBi (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>21 dB within 1 dB contour

Remarks: None

**Applicant:**

ERA Technology Limited
Cleeve Road
Leatherhead, Surrey
KT22 7SA
United Kingdom

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fax: +44 1372 367138
mailto: vlad.stojkovic@era.co.uk

Certificate:

EA-A022

Antenna:

10KuS

Diameter:

1.0 m

Standard:

M

Approval date:

24-10-2003

Revision 1 date:

31-07-2008

System Description:

Transportable antenna for digital and analogue SNG applications. Offset front-fed configuration. Four piece 1.0 m diamond shape carbon fibre main reflector.

Configurations:

One standard configuration 10 KuS-F01 with rotary joint.

Maximum Allowed EIRP:

48.7 dBW/40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

42.7 dBi (typical at 14.25 GHz)

Rx Gain:

40.7 dBi (typical at 11.7 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>25 dB within 1 dB contour

Remarks: None

**Applicant:**

Vertex RSI
General Dynamics C4 Systems
2600 North Longview Street
Kilgore, TX 75662
USA

tel: +1 903 988 6107
fax: +1 903 988 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A023

Antenna:
4.8m KPK

Diameter:
4.8 m

Standard:
M

Approval date:
10-11-2003

Revision 1 date:
31-07-2008

System Description:

General purpose earth station for analogue and digital transmission up to higher bit rates. Dual optics axi-symmetric Compact Cassegrain configuration. 16 panels 4.8 m aluminium main reflector. Broadband two port feedsystem. Pipe type mount in manual or motorisable version.

Configurations:

Two standard configurations with jackscrew drive system or strut drive system.

Maximum Allowed EIRP:

55.0 dBW/40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:
13.75 - 14.50 GHz

Rx Frequency:
10.70 - 12.75 GHz

Tx Gain:
55.0 dBi (typical at 14.25 GHz)

Rx Gain:
53.5 dBi (typical at 11.85 GHz)

Tx XPD:
>35 dB anywhere

Rx XPD:
>35 dB anywhere

Remarks: None

**Applicant:**

Vertex RSI
General Dynamics C4 Systems
2600 North Longview Street
Kilgore, TX 75662
USA

tel: +1 903 988 6107
fax: +1 903 988 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A024

Antenna:
4.8m KPC

Diameter:
4.8 m

Standard:
M

Approval date:
10-11-2003

Revision 1 date:
31-07-2008

System Description:

General purpose earth station for analogue and digital transmission up to higher bit rates. Dual optics axi-symmetric Compact Cassegrain configuration. 16 panels 4.8 m aluminium main reflector. Broadband two port feedsystem. Pipe type mount in manual or motorisable version.

Configurations:

Two standard configurations with jackscrew drive system or strut drive system.

Maximum Allowed EIRP density:

59.8 dBW / 40 kHz for digital carriers transmitted anywhere in the satellite receive contour of the C-band capacity of the Eutelsat satellites (EESS 502 § 6.1 refers).

Tx Frequency:

5.850-6.425 GHz

Rx Frequency:

3.625-4.2 GHz

Tx Gain:

47.8 dBi (typical at 6.232 GHz)

Rx Gain:

43.7 dBi (typical at 4 GHz)

Tx XPD:

>27 dB within -1 dB contour

Rx XPD:

>19.7 dB within -1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

MAEC-VISIOSAT
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto: olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-A025

Antenna:
90 DR
0141020
0141027
0141011

Diameter:
0.9 m

Standard:
M

Approval date:
13-01-2004

Revision 1 date:
31-07-2008

System Description:

Broadband Interactive Earth Station based on VISIOSAT 0.9 m dual offset gregorian antenna versions 0141020 with OMT VICTORY, 0141027 with OMT INVACOM, LNB included and 0141011 with OMT ASC Signal.

Models Available:

0141020 with OMT VICTORY, 0141027 with OMT INVACOM, LNB included and 0141011 with OMT ASC Signal.

Maximum Allowed EIRP:

39.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz (OMT Victory)
14.00 - 14.50 GHz (OMT Invacom and ASC Signal)

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

40.1 dBi (typical at 14.25 GHz)

Rx Gain:

38.7 dBi (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

MAEC-VISIOSAT
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto: olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-A028

Antenna:
120 DR
0141124
0141125

Diameter:
1.2 m

Standard:
M

Approval date:
20-03-2006

Revision 1 date:
31-07-2008

System Description:

Broadband Interactive Earth Station based on VISIOSAT 1.2 m dual offset gregorian antenna versions 0141124 with OMT APEXSAT, 0141125 with OMT INVACOM, LNB included.
Expected G/T at 11.50 GHz: 20.9 dB/K when using Apexsat OMT and Zinwell LNB.
Saturated EIRP at 14.05 GHz: 48.7 dBW when using Apexsat OMT and with 3 W NJRC BUC.

Models Available:

0141124 with OMT APEXSAT, 0141125 with OMT INVACOM, LNB included.

Maximum Allowed EIRP:

44.7 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz (OMT Apexsat)
14.00 - 14.50 GHz (OMT Invacom)

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

42.7 dBi (typical at 14.25 GHz)

Rx Gain:

41.4 dBi (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

**Applicant:**

MAEC-VISIOSAT
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto: olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-A029**Antenna:**
120 EMIT
0141115
0141116**Diameter:**
1.2 m**Standard:**
M**Approval date:**
20-03-2006**Revision 1 date:**
31-07-2008**System Description:**

Broadband Interactive Earth Station based on VISIOSAT 1.2 m overmode feed offset front fed models 0141115 with OMT INVACOM LNB included, 0141116 with OMT APEXSAT. Expected G/T at 11.50 GHz: 20.6 dB/K when using Apexsat OMT and Zinwell LNB. Saturated EIRP at 14.05 GHz: 48.9 dBW when using Apexsat OMT and a 3 W NJRC BUC.

Models Available:

0141115 with OMT INVACOM LNB included., 0141116 with OMT APEXSAT.

Maximum Allowed EIRP:

42.8 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

42.8 dBi (typical at 14.25 GHz)

Rx Gain:

41.4 dBi (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>24 dB within 1 dB contour

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

VERTEX RSI
General Dynamics C4 Systems
2600 N. Longview Street
KILGORE, TX 75662
USA

Tel: +1 903 988 6107
Fax: +1 903 984 6867
mailto : alan.pollard@gdsatcom.com

Certificate:
EA-A030**Antenna:**
1 m SFK-LT**Diameter:**
1.0 m**Standard:**
M**Approval date:**
21-06-2006**Revision 1 date:**
31-07-2008**System Description:**

Transportable Backpack Earth Station based on a six petals carbon fiber molded 1 meter SFK VERTEX RSI antenna with mode generator two port feed and rotary joint. Suitable for low-medium bit rate applications.

Models Available:

Globetrekker

Maximum Allowed EIRP:

44.1 dBW/40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

42.1 dBi (typical at 14.25 GHz)

Rx Gain:

40.5 dBi (typical at 11.70 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>25 dB within 1 dB contour

Remarks:

To be operated for wind speeds up to 50 Km/h

Manual antenna pointing only

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

VERTEX RSI
General Dynamics C4 Systems
2600 N. Longview Street
KILGORE, TX 75662
USA

Tel: +1 903 988 6107
Fax: +1 903 984 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A031**Antenna:**
2.4 SMC-LT**Diameter:**
2.4 m**Standard:**
M**Approval date:**
21-06-2006**Revision 1 date:**
31-07-2008**System Description:**

Transportable Fly away Earth Station based on a three pieces 2.4 meter VERTEX RSI carbon fiber molded antenna with mode generator two ports feed and rotary joint. Suitable for digital transmission up to highest bit rate. Circular Polarization.

Models Available:

2.4 SMC-LT

Maximum Allowed EIRP density:

54.1 dBW/40 KHz for digital carriers transmitted anywhere in the satellite receive contour of the C-band capacity of the Eutelsat satellites (EESS 502 § 6.1 refers).

Tx Frequency:

3.625 – 4.200 GHz

Rx Frequency:

5.850 – 6.425 GHz

Tx Gain:

42.1 dBi (typical at 6.138 GHz)

Rx Gain:

38.1 dBi (typical at 4.00 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>35 dB within 1 dB contour

Remarks:

The de-ice option has not been validated for the scope of the type approval

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

VERTEX RSI
General Dynamics C4 Systems
2600 N. Longview Street
KILGORE, TX 75662
USA

Tel: +1 903 988 6107
Fax: +1 903 984 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A032**Antenna:**
2.4 SMK-LT**Diameter:**
2.4 m**Standard:**
M**Approval date:**
21-06-2006**Revision 1 date:**
31-07-2008

System Description:

Transportable Fly away Earth Station based on a three pieces 2.4 meter VERTEX RSI carbon fiber molded antenna with mode generator two ports feed and rotary joint. Suitable for digital transmission up to highest bit rate.

Models Available:

2.4 SMK-LT

Maximum Allowed EIRP:

51.1 dBW / 40kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

49.1 dBi (typical at 14.25 GHz)

Rx Gain:

47.4 dBi (typical at 11.70 GHz)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>27 dB within 1 dB contour

Remarks:

The de-ice option has not been validated for the scope of the type approval

Maximum operating wind speed:72 Km/h

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

ORBIT
5b Hatzoran St.
P.O. Box 8657 NETANYA
42504 ISRAEL

Tel: +972 9 89262739
Fax: +972 9 892 2820
mailto : guy@orbit-ltd.co.il

Certificate:
EA-A033

Antenna:
OrSat AL-7103-Ku Mk II

Diameter:
1.15m

Standard:
M

Approval date:
06-04-2007

Revision 2 date:
02-10-2008

System Description:

Stabilised maritime antenna consisting of OrSat 1.15m dual offset Gregorian composite material antenna with single piece foam or honeycomb radome, with three axis stabilization platform and a conical scanning tracking. Can support transceivers 4 W, 8 W, 16 and 20 W rating.

Models Available:

AL-7103-Ku-Mk II with two standard configurations: with ERA OMT and Tx Reject Filter or Orbit Integrated RF front-end.

Maximum Allowed EIRP:

39.3 or 41.3* dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

42.3 dBi (typical at 14.25 GHz)

Rx Gain:

41.0 or 40.2* dBi (typical at 12.50 GHz)

Tx XPD:

>30 dB within -1 dB contour

Rx XPD:

>35 dB within -1 dB contour

Remarks:

1

Operations of the tracking has been tested on a Sea Simulator.

RMS pointing error 0.12° at 3σ for the following ship maximum velocity and acceleration:

Roll = $11^\circ/\text{sec}$ and $4^\circ/\text{sec}^2$

Pitch = $18^\circ/\text{sec}$ and $19^\circ/\text{sec}^2$

Yaw = $5^\circ/\text{sec}$ and $0.3^\circ/\text{sec}^2$

2

(*) applies to the configuration using the Orbit Integrated RF front-end

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

VERTEX RSI
General Dynamics C4 Systems
2600 N. Longview Street
KILGORE, TX 75662
USA

Tel: +1 903 988 6107
Fax: +1 903 984 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A036**Antenna:**
2.4 SMC-LT
Four ports feed**Diameter:**
2.4 m**Standard:**
M**Approval date:**
30-05-2008

System Description:

Transportable Fly away Earth Station based on a three pieces 2.4 meter VERTEX RSI carbon fiber molded antenna with mode generator four ports feed and rotary joint. Suitable for digital transmission up to highest bit rate. Circular Polarization.

Models Available:

2.4 SMC-LT 4 ports feed

Maximum Allowed EIRP density:

54.7 dBW/40kHz for digital carriers transmitted anywhere in the satellite receive contour of the C-band capacity of the Eutelsat satellites (EESS 502 § 6.1 refers).

Tx Frequency:

5.850 – 6.425 GHz

Rx Frequency:

3.625 – 4.200 GHz

Tx Gain:

41.7 dBi (typical at 6.138 GHz)

Rx Gain:

37.2 dBi (typical at 3.625 GHz)

Tx XPD:

>32 dB within 1 dB contour

Rx XPD:

>31 dB within 1 dB contour

Remarks:

The de-ice option has not been validated for the scope of the type approval

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

VERTEX RSI
General Dynamics C4 Systems
2600 N. Longview Street
KILGORE, TX 75662
USA

Tel: +1 903 988 6107
Fax: +1 903 984 6867
mailto: alan.pollard@gdsatcom.com

Certificate:
EA-A037**Antenna:**
2.4 SMK-LT
4-ports feed**Diameter:**
2.4 m**Standard:**
M**Approval date:**
30-05-2008

System Description:

Transportable Fly away Earth Station based on a three pieces 2.4 meter VERTEX RSI carbon fiber molded antenna with mode generator four ports feed and rotary joint. Suitable for digital transmission up to highest bit rate.

Models Available:

2.4 SMK-LT 4 ports feed

Maximum Allowed EIRP:

50.9 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:
13.75 - 14.50 GHz**Rx Frequency:**
10.70 - 12.75 GHz**Tx Gain:**
48.9 dBi (typical at 14.25 GHz)**Rx Gain:**
47.6 dBi (typical at 12.5 GHz)**Tx XPD:**
>35 dB within 1 dB contour**Rx XPD:**
>23 dB within 1 dB contour

Remarks:

The de-ice option has not been validated for the scope of the type approval

Maximum operating wind speed:72 Km/h

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

GENERAL DYNAMICS
SATCOM Technologies
2600 N. Longview Street
Kilgore, TX 75662
United States
Tel : +1 903 988 6107
Fax :+1 903 984 6867
[Website : www.gdsatcom.com](http://www.gdsatcom.com)

Contact point: alan.pollard@gdsatcom.com

Certificate:
EA-A039

Antenna:
3.80 Meter VXK
3.80 Meter PMK

Diameter:
3.8 m

Standard:
M

Approval date:
03-01-2013

System Description:

General purpose antenna for digital transmission up to higher rates. Dual offset Gregorian configuration. Bolt-together 12 panels 3.8 m aluminum main reflector. Broadband four port feed system. Pipe type mount in manual (PMK) or motorizable (VXK) version.

Models Available:

Four-port linear polarization feed

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):
55.0 dBW / 40 kHz for satellite orbital separations $\geq 1.5^\circ$

Tx Frequency:

13.75 - 14.50 GHz

Tx Gain:

53.2 dBi (typical at 14.25 GHz)

Tx XPD:

>35 dB within -1 dB contour

Rx Frequency:

10.70 - 12.75 GHz

Rx Gain:

51.2 dBi (typical at 11.70 GHz)

Rx XPD:

>35 dB within -1 dB contour

G/T: 30.1 dB/K at 11.70 GHz for a 70° K LNA @
30° Elevation

Remarks:

- 1-The type approval tests were performed on the long test range of General Dynamics in Kilgore, Texas between the 4 and 14 June 2012.
- 2-The type approval's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.
- 3-Any change to the type approved configuration needs to be notified to Eutelsat and may be subject to further tests.
- 4-The impact of the de-ice system on the RF performance of the antenna has not been tested.
- 5-For the two port Ku band configuration, refer to EA-A015.

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

TSAT A.S.
Smedsvingen 4 B
1395 Hvalstad
Norway

Tel: +47 66 77 44 44
Fax: +47 66 77 44 01
mailto: stein.harstad@tsat.no

Certificate:
EA-V013

VSAT:
OA1600B

Diameter:
0.9 m

Approval date:
06-11-1996

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on Fibo 0.9 m dual offset Gregorian antenna model 58000. Integrated transmit/receive radio unit Normarc RFA1188 with solid state 0.1, 0.5 or 2.0 Watt SSPA.

Models Available:

One basic model with either 0.1, 0.5 or 2.0 Watt SSPA.

Maximum Allowed EIRP:

43.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Gain:

41.4 dBi (typical)

G/T:

19.6 dB/K (typical)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>35 dB within 1 dB contour

Remarks:

The company known as Normarc A/S is now known as Teamcom A/S.

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

TSAT A.S.
Smedsvingen 4 B
1395 Hvalstad
Norway

Tel: +47 66 77 44 44
Fax: +47 66 77 44 01
mailto: stein.harstad@tsat.no

Certificate:
EA-V014

VSAT:
OA1600C

Diameter:
1.2 m

Approval date:
06-11-1996

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on Fibo 1.2 m dual offset Gregorian antenna model 59000. Integrated transmit/receive radio unit Normarc RFA1188 with solid state 0.1, 0.5 or 2.0 Watt SSPA.

Models Available:

One basic model with either 0.1, 0.5 or 2.0 Watt SSPA.

Maximum Allowed EIRP:

45.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Gain:

43.4 dBi (typical)

G/T:

22.1 dB/K (typical)

Tx XPD:

>35 dB within 1 dB contour

Rx XPD:

>35 dB within 1 dB contour

Remarks:

The company known as Normarc A/S is now known as Teamcom A/S.

**Applicant:**

Paradigm (UK)
Technology House
Station Road
Alton, Hampshire
GU34 2 PZ
United Kingdom

Tel: +44 1420 88199
Fax: +44 1420 88842
mailto : sales@paracomm.co.uk

Certificate:
EA-V032

VSAT:
Paradigm AnaSat Ku 1600

Diameter:
2.4 m

Approval date:
20-04-2000

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on Prodelin 2.4 m front-fed offset antenna model 1244 version 930, 931 and 933. The transceiver is the AnaSat Ku Band Transceiver, 2, 4, 8 and 16 W with wideband LNC.

Models Available:

A standard antenna available with optional Superhydrophobic coating and anti-icing system. The AnaSat Ku Band Transceiver is available with 2, 4, 8, and 16 Watt power amplifier in redundant and single thread configurations.

Maximum Allowed EIRP:

37.0 dBW / 4 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

49.2 dBi (typical at 14.25 GHz)

G/T:

25.3 dB/K (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks: None

**Applicant:**

Selex Communications S.p.A.
Via dell'Industria, 4
00040 Pomezia - Rome (Italy)

Phone.: +39 06 91091 631
Fax: +39 06 91091 389
mailto : paolo.capodiecici@selex-comms.com

Certificate:
EA-V036

VSAT:
DESNET 2000 - 24

Diameter:
2.4 m.

Approval date:
15-09-2000

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on Prodelin 2.4 m front-fed offset antenna model 1244 version 930, 931 and 933. The transceiver is the Sierracom Ku Band Transceiver, 2, 4, 8 and 16 W with 2600-3008 LNB.

Models Available:

A standard antenna available with optional Superhydrophobic coating and anti-icing system. The Sierracom Ku Band Transceiver is available with 2, 4, 8, and 16 Watt power amplifier in single thread configurations.

Maximum Allowed EIRP:

37.0 dBW / 4 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

14.00 – 14.50 GHz

Rx Frequency:

10.95 – 12.75 GHz

Tx Gain:

49.2 dBi at 14.25 GHz (typical)

G/T:

27.0 dB/K at 12.50 GHz (typical)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

Maec-Visiosat
Z.I. de Regourd, B.P. 22
46001 Cahors Cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto: olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-V038

VSAT:
VISIOSAT 90 DR

Diameter:
0.9 m

Approval date:
19-12-2001

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on VISIOSAT 0.9 m dual offset Gregorian antenna model 0141021, versions 0141020 with OMT VICTORY and 0141019 with OMT INVACOM, LNB included. The transceiver is the Ku TSAT HPA AS 0.5 W.

Models Available:

Version 0141019 with OMT INVACOM, LNB included and version 0141020 with OMT VICTORY.

Maximum Allowed EIRP:

42.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

40.1 dBi (typical at 14.25 GHz)

G/T:

18.1 dB/K (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks: None

**Applicant:**

MAEC-VISIOSAT
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46001 Cahors cedex 09
France

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Certificate:
EA-V040**Antenna:**
75 Rx/Tx ANT
0141054**Diameter:**
0.75 m**Standard:**
M**Approval date:**
13-01-2004**Revision 1 date:**
31-07-2008**System Description:**

VSAT terminal based on VISIOSAT 0.75 m offset front fed antenna T.N. 0141054. The transceiver is the 2 Watt Skyware Radio 1216 L or 1214 S.

Models Available:

Two models available: with transceiver KL 1216 L (L-band interface) and KL 1214 S (S-band interface)

Maximum Allowed EIRP:

38.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

39 dBi (typical at 14.25 GHz)

G/T:

17.0 dB/K (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>21 dB within 1 dB contour

Remarks: None

**Applicant:**

MAEC-VISIOSAT
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto : olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-V041**Antenna:**
90 DR
0141044**Diameter:**
0.9 m**Standard:**
M**Approval date:**
13-01-2004**Revision 1 date:**
31-07-2008**System Description:**

VSAT terminal based on VISIOSAT 0.9m dual offset gregorian antenna model T.N. 0141044.
The transceiver is the 2 Watt Skyware Radio 1216 L or 1214 S or 1216 EL or 1214 ES .

Models Available:

Transceiver KL 1216 L (L-band interface) and KL 1214 S (S-band interface) for the band 14.0-14.5 GHz.

Transceiver KL 1216 EL (L-band interface) and KL 1214 ES (S-band interface) for the band 13.75-14.5 GHz.

Maximum Allowed EIRP:

42.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75- 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

40.1 dBi (typical at 14.25 GHz)

G/T:

18.2 dB/K (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

Rockwell Collins Sweden AB
Torggatan 15, 3rd Floor, PO Box 6075
SE-171 06 Solna
Sweden

Tel: +46 8 728 50 00
Fax: +46 8 728 50 44
E-mail: swetac@rockwellcollins.com

Certificate:
EA-V042

Antenna:
IPT SUITCASE

Diameter:
0.9 x 0.66 m

Standard:
M

Approval date:
12-02-2004

Revision 1 date:
05-07-2004

Revision 2 date:
31-07-2008

System Description:

VSAT terminal based on Rockwell Collins (formerly Swe-Dish) dual offset gregorian antenna model IPT Suitcase. The transceiver is the 35 Watt CPI SSPA.

Models Available:

One standard configuration.

Maximum Allowed EIRP:

36.4 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:
13.75- 14.50 GHz

Rx Frequency:
10.95 - 12.75 GHz

Tx Gain:
38.2 dBi (typical at 14.25 GHz)

G/T:
18.4 dB/K (typical at 12.50 GHz)

Tx XPD:
>30 dB within 1 dB contour

Rx XPD:
>30 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

Maec-Visiosat
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto : olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-V043

Antenna:
90 EMIT
0141095

Diameter:
0.9 m

Standard:
M

Approval date:
23-06-2004

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on VISIOSAT 0.9m overmode feed offset front fed antenna model 0141095. 2 Watt Invacom Radio TUL201 or TUL204, type approved EODU-004, with integrated LNB/OMT/Reject filter SPV 10/20/11/21 SM.

Models Available:

Two models available:
TUL201: Constant level (DiSEqC)
TUL204: Fixed Gain (no DiSEqC)

Maximum Allowed EIRP:

42.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

40.2 dBi (typical at 14.25 GHz)

G/T:

18.4 dB/K (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>24 dB within 1 dB contour

Remarks: None

**Applicant:**

Maec-Visiosat
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46001 Cahors cedex 09
France

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Certificate:
EA-V044

Antenna:
90 EMIT
0141096

Diameter:
0.9 m

Standard:
M

Approval date:
23-06-2004

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on VISIOSAT 0.9m overmode feed offset front fed antenna model 0141095. 2 Watt Skyware transceiver, 1214S, 1216L or 1226L, type approved EODU-003.

Models Available:

Two models available:
1214S: S-band Interface
1216L: L-band interface (LO 9.75/10.6 GHz)
1226L: L-band interface (LO 10/11.3 GHz)

Maximum Allowed EIRP:

42.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:
14.00 - 14.50 GHz

Rx Frequency:
10.70 - 12.75 GHz

Tx Gain:
40.2 dBi (typical at 14.25 GHz)

G/T:
18.4 dB/K (typical at 12.50 GHz)

Tx XPD:
>30 dB within 1 dB contour

Rx XPD:
>24 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

Raven Manufacturing Ltd
Metcalf Drive
Altham Ind. Est., Altham Accrington
Lancashire BB5 5TU
United Kingdom

Tel: +44 (0) 1282 770000
Fax: +44 (0) 1282 770022
mailto: gavincox@raven.co.uk

Certificate:
EA-V045**Antenna:**
G90 Tx/Rx**Diameter:**
0.89 x 0.80 m**Standard:**
M**Approval date:**
04-10-2004**Revision 1 date:**
31-07-2008

System Description:

VSAT terminal based on Raven overmode feed offset front fed antenna model G90 Tx/Rx. 2 Watt Invacom Radio TUL201 or TUL204, type approved EODU-004, with Invacom OMT 805013 and LNB/Reject filter SPV 30SM.

Models Available:

Two models available:
TUL201: Constant level (DiSEqC)
TUL204: Fixed Gain (no DiSEqC)

Maximum Allowed EIRP:

40.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

38.2 dBi (typical at 14.25 GHz)

G/T:

22.7 dB/K (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>30 dB within 1 dB contour

Remarks: None

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

General Dynamics
C4 Systems
SATCOM Technologies - Prodelin
1500 Prodelin Drive - Newton NC 28658
USA

Tel: +1 828-466-1907 / +49 7231 14 55 70
Fax: +1 828-464-5625 / +49 7231 14 55 710
mailto: colin.robinson@gdsatcom.com
martin.pfrommer@gdsatcom.com

Certificate:
EA-V046**Antenna:**
1985**Diameter:**
0.98 m**Standard:**
M**Approval date:**
27-10-2004**Revision 1 date:**
31-07-2008**System Description:**

VSAT terminal based on Prodelin overmode feed, offset front fed antenna model 1985. 1 W GILAT ODU type approved EODU-001, EODU-002, with Prodelin OMT and LNB/Reject filter feed subassembly 0800-3458 (6 Pound ODU weight limit) or 0800-3459 (12 Pound ODU weight limit).

Models Available:

Three models available:

1985-990 98 cm reflector and 3-Axis tilt (polar) mount

1985-991 98 cm reflector with Hydrophobic Coating and 3-Axis tilt (polar) mount

1985-993 98 cm reflector with 240 V Anti-Icing and 3-Axis tilt (polar) mount

Maximum Allowed EIRP:

43.1 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

41.1 dBi (typical at 14.25 GHz)

G/T:

17.2 dB/K (typical at 12.50 GHz)

Tx XPD: >30 dB within -1 dB contour**Rx XPD:** >25 dB within -1 dB contour**Remarks:** Adjustment of the crosspolarisation alignment uniquely by rotation of the reflector around the tilt (polar) mount

Eutelsat s.A. Type Approval Summary Sheet



Applicant:

General Dynamics
C4 Systems
SATCOM Technologies - Prodelin
1500 Prodelin Drive - Newton NC 28658
USA

Tel: +1 828-466-1907/+49 7231 14 55 70
Fax: +1 828-464-5625/+49 7231 14 55 710
mailto: colin.robinson@gdsatcom.com
martin.pfrommer@gdsatcom.com

Certificate:
EA-V047**Antenna:**
1135**Diameter:**
1.2 m**Standard:**
M**Approval date:**
27-10-2004**Revision 1 date:**
31-07-2008

System Description:

VSAT terminal based on Prodelin overmode feed, offset front fed antenna model 1135. 1 W GILAT ODU type approved EODU-001, EODU-002, with Prodelin OMT and LNB/Reject filter feed subassembly 0800-3461 (6 Pound ODU weight limit) or 0800-3462 (12 Pound ODU weight limit).

Models Available:

Three models available:

1135-990 1.2 m reflector and 3-Axis tilt (polar) mount

1135-991 1.2 m reflector with Hydrophobic Coating and 3-Axis tilt (polar) mount

1135-993 1.2 m reflector with 240 V Anti-Icing and 3-Axis tilt (polar) mount

Maximum Allowed EIRP:

45.9 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

43.0 dBi (typical at 14.25 GHz)

G/T:

19.0 dB/K (typical at 12.50 GHz)

Tx XPD: >30 dB within -1 dB contour**Rx XPD:** >25 dB within -1 dB contour

Remarks: Adjustment of the crosspolarisation alignment uniquely by rotation of the reflector around the tilt (polar) mount

**Applicant:**

TELE System Electronic Srl
Via S.Benedetto 14/M
36050 Bressanvido (VI)
Italy

Tel.: +39 0444 460800
Fax.: +39 0444 460810
mailto: spiovesan@telesystem.it
mcenzon@telesystem.it

Certificate:
EA-V052**Antenna:**
11026001 EL980X700**Equivalent Diameter:**
0.83 m**Standard:**
M**Approval date:**
06-05-2005**Revision 1 date:**
31-07-2008**System Description:**

VSAT terminal based on TeleSystem 0.83 m offset front fed antenna, model 11026001 and compensated feed, model 58210001. 2 W Skyware transceiver, model 1226L, 1216L, 1214S or 1212L type approved EODU-003.

Models Available:

11026001 PARAB. BIDIREZIONALE EL980X700

Maximum Allowed EIRP:

40.0 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

14.00 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

40 dBi (typical at 14.25 GHz)

G/T:

20.0 dB/K (average 11.0 – 12.7 GHz)

Tx XPD:

>30 dB within 1 dB contour

Rx XPD:

>24 dB within 1 dB contour

Saturated EIRP:

Better than 43 dBW (measured at 14.00 GHz)

Remarks: None

**Applicant:**

Maec-Visiosat
Z.I. de Regourd, B.P. 22
46001 Cahors cedex 09
France

Tel: +33 5 65 35 82 20
Fax: +33 5 65 35 82 52
mailto: olivier.dhellemmes@groupe-cahors.com

Certificate:
EA-V053

Antenna:
120 DR
0141126

Diameter:
1.2 m

Standard:
M

Approval date:
20-03-2006

Revision 1 date:
31-07-2008

System Description:

VSAT terminal based on VISIOSAT 1.2 m dual offset gregorian antenna model 0141126.
1 Watt Skyware transceiver 1116 L.
2 Watt Skyware transceiver 1214 S, 1212 L, 1216 L or 1226 L, type approved EODU-003.
4 Watt Skyware transceiver 1416 L.

Models Available:

1214 S: S-band Interface
1212 L: L-band interface (LO 9.75/10.25 GHz)
1116 L and 1216 L: L-band interface (LO 9.75/10.6 GHz)
1226 L: L-band interface (LO 10/11.3 GHz)
1416 L: L-band interface (LO 10/10.6 GHz)

Maximum Allowed EIRP:

44.2 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers).

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

42.7 dBi (typical at 14.25 GHz)

Rx Gain:

41.4 dBi (typical at 12.50 GHz)

Tx XPD:

>30 dB within 1 dB contour

G/T:

20.8 dBK (measured at 11.50 GHz)

Rx XPD:

>30 dB within 1 dB contour

Saturated EIRP: 49.1 dBW measured at 14.05 GHz

Remarks: None

**Applicant:**

Skyware Global
1315 Outlet Center Drive,
Smithfield, N.C. 27577
USA

Tel: +1 919 934 9711

Fax: +1 919 989 2274

Web Site: <http://www.skywareglobal.com>

Contact point: Hamid Moheb

mailto: hamidmoheb@skywareglobal.com

Certificate:

EA-V055

Antenna:

62-1255401

1.2 m RXTx Type 125 Class I

1.2 m RXTx Type 125 Class I extended band

Diameter:

1.2 m

Standard:

M

Approval date:

21-10-2008

Revision 1:

07-09-2015

Last submitted data:

29-07-2015 with report dated 18-08-2014

System Description:

Long focal length 1.2M Type 125 Class I Ku band VSAT antenna (6116023-11R) in combination with Mode Matched (compensated) 2 ports, linear polarized feed/OMT for standard BUC/ LNB adaptation (WR 75 Flange). Front fed offset configuration, manual polarization adjustment by rotating the OMT while the feed remains fixed with the antenna feed boom. Single piece 1,2 m SMC reflector. Top pole Az/EI Mount (6116125-01) with stable metal antenna back structure and steel boom arm.

Configurations:

One standard configuration.

Feed: 6116784-13 ; Reflector: 6116023-11R ; Azel: 6116125-01

Designed for an installed power \leq 16Watt

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):

44.5 dBW / 40 kHz for satellite orbital separations \geq 3.0°

42.4 dBW / 40 kHz for satellite orbital separations \geq 2.5°

38.4 dBW / 40 kHz for satellite orbital separations \geq 1.5°

Tx Frequency:

13.75 – 14.50 GHz

Rx Frequency:

10.70-12.75 GHz

Tx Gain:

43.5 dBi (typical at 14.25 GHz)

Rx Gain:

41.4 dBi (typical at 11.70 GHz)

Tx XPD:

>30 dB within the mainlobe -1 dB contour

Rx XPD:

>26 dB within the mainlobe -1 dB contour

Windload – Pointing Error:

<0.4°

G/T:

21.3 dB/K (typical at 11.95 GHz, elevation 30°)

Remarks:

1- The sole Class I is available and is designed for operating with an external OMT in a XPC feed assembly (6116784-13) weighting a maximum of 1.7 kg.

2-To be operated for maximum wind speeds of up to 72 Km/h.

Eutelsat s.a. Type Approval Summary Sheet

**Applicant:**

MITSUBISHI ELECTRIC CORPORATION
2-7-3, Marunouchi Chiyoda-ku
Tokyo 100-8310
Japan

Tel : +81 3 3218 3346
Fax : +81 3 3218 9492
Website : <http://global.mitsubishielectric.com>

Certificate:
EA-V056**Antenna:**
Ku Mate**Diameter:**
1 m**Standard:**
M**Approval date:**
21-12-2009**Revision 1 date:**
17-05-2011**System Description:**

Stabilised maritime antenna consisting of 1 m ring focus Gregorian aluminum antenna with fiberglass radome, with three axis stabilization platform and polarization axis and a conical scanning tracking. BUC 8 W NJRC model NJT5118NT, LNA Mitsubishi RB256718.

Models Available:

Standard configuration: 14.00-14.50 GHz linear orthogonal polarisation
Option 1 : Tx and Rx parallel.
Option 2 : 13.75 GHz extended band
Option 3 : Tx and Rx parallel and 13.75 GHz extended band

Maximum Allowed EIRP:

39.7 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

40.9 dBi (typical at 14.25 GHz)

Rx Gain:

39.8 dBi (typical at 12.75 GHz)

Tx XPD:

>30 dB within -1 dB contour

Rx XPD:

>30 dB within -1 dB contour

Remarks:

1

Operations of the tracking has been tested on a Sea Simulator, with rms pointing error <0.2°.

Roll = +/-30°/7sec and 24.2°/sec²

Pitch = +/-10°/5sec and 15.8°/sec²

Yaw = +/-4°/14sec and 0.8°/sec²

2

Measured G/T= 18.4 dB/K @ 12.5 GHz, 30° Elevation

Eutelsat s.a. Type Approval Summary Sheet

**Applicant:**

Rockwell Collins Sweden AB
Torggatan 15, 3rd Floor, PO Box 6075
SE-171 06 Solna
Sweden

Tel : +46 8 728 50 00
Fax :+46 8 728-50 44
Website :<http://www.rockwellcollins.com>
Emailto: swetac@rockwellcollins.com

Certificate:
EA-V057**Antenna:**
CCT 120-4
CCT 120-1**Diameter:**
0.83x1.2 m**Standard:**
M**Approval date:**
01-06-2010**Last update:**
01-06-2010**System Description:**

Antenna consisting of 1.2 m Dual Offset Gregorian Carbon Fibre antenna. SSPA 50 W CPI model 705543-K1314-050SA-030, PLL LNB NJR 2536SC

Models Available:

4 segment antenna (CCT120-4) and solid antenna (CCT120-1)
Standard configuration: 13.75-14.50 GHz linear orthogonal polarization
One option available: Tx and Rx parallel

Maximum Allowed EIRP:

41 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.95 - 12.75 GHz

Tx Gain:

41.9 dBi (typical at 14.25 GHz)

Rx Gain:

41 dBi (typical at 11.70 GHz)

Tx XPD:

>40 dB on axis
>30 dB within -1 dB contour

Rx XPD:

>40 dB on axis
>30 dB within -1 dB contour

Conditions and remarks:

1

Submission on at least a yearly basis of measurement results for at least one production unit

2

Measured G/T= 21.5 dB/K @ 12.5 GHz, 30° Elevation

3

Maximum operating wind speed: 20 m/s

**Manufacturer:**

Cobham SATCOM, Sea Tel Products
4030 Nelson Avenue
CONCORD, CA
94520
USA

Tel: + 1 925 798 7979
Fax: + 1 925 798 7986
Website: <http://www.cobham.com/seatel>
mailto: Darren.Manning@cobham.com

Certificate:

EA-V058

Antenna models:

5009 StdM Mk2
5012 StdM

Diameter:

1.2 m

Standard:

M

Approval date:

08-12-10

Revision 1 date:

18-11-2013

System Description:

Stabilized maritime antenna – splash feed axi-symmetric cassegrain – feed manufactured by ERA Technology (Cobham Technical Services) - three layers 1.68 m diameter radome manufactured by Ace Composites on SEATEL design. Three axis stabilization platform with conical scanning tracking.

BUC Various (NJRC, Codan, Comtech) 4-8-16-40 Watt with integrated SMW Q-PLL or NJRC LNB.

Models Available:

Standard configuration: 13.75-14.50 GHz linear orthogonal polarization.

Option 1 : Tx and Rx parallel.

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 refers):

40.6 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 2.0^\circ$

38.0 dBW / 40 kHz for an orbital separation of the adjacent satellite $\geq 1.5^\circ$

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain:

42.4 dBi (typical at 14.25 GHz)

Rx Gain:

41.0 dBi (typical at 12.75 GHz)

Tx XPD:

>30 dB within -1 dB contour

>35 dB within maximum pointing error

Rx XPD:

>30 dB within -1 dB contour

>35 dB within maximum pointing error

Conditions and remarks:

1-Submission on at least a yearly basis of measurement results for at least one production unit.

2-Operations of the tracking has been tested with the antenna (without radome) on a Sea Simulator, with rms pointing error $<0.2^\circ$.

Roll = $\pm 20^\circ/8$ sec

Pitch = $\pm 4^\circ/8$ sec

Yaw = $\pm 6^\circ/8$ sec

3-Measured G/T= 19.3 dB/K @ 12.50 GHz, 31.2° Elevation.

Eutelsat s.A. Type Approval Summary Sheet

**Applicant:**

mitsubishi electric corporation
2-7-3, Marunouchi Chiyoda-ku, Tokyo
100-8310, Japan
Tel : +81-3-3218-3346
Fax : +81-3-3218-9492
[Website : http://global.mitsubishielectric.com](http://global.mitsubishielectric.com)

Contact point:
Sato.Hiroyuki@ea.mitsubishielectric.co.jp

Certificate:
EA-V059

Antenna:
SX 5410 Ku Mate

Diameter:
1.2 m

Standard:
M

Approval date:
16-12-2011

System Description:

Stabilised maritime antenna equipped with three ports feed (one Tx and two Rx) for the standard configuration and option 3; two ports feed for options 1 and 2, consisting of 1.2 m ring focus aluminum antenna with backfire feedhorn, with 1.57 m sandwich foam radome, with three axis stabilization platform and polarization axis and a conical scanning tracking. BUC 8 W NJRC model NJT5118NTME (Standard) and model NJT5218NTME (Option 2 and 3), LNA Mitsubishi Electric RB256718-G01.

Models Available:

Standard configuration (SX 5410): 14.00-14.50 GHz linear orthogonal and parallel polarization.
Option 1 (SX 5400) : Tx and Rx orthogonal.
Option 2 (SX 5420) : 13.75 GHz extended band orthogonal.
Option 3 (SX 5430) : Tx and Rx orthogonal and parallel pol. and 13.75 GHz ext. band.

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):
38.3 dBW / 40 kHz for satellite orbital separations $\geq 1.5^\circ$.
41.4 dBW / 40 kHz for satellite orbital separations $\geq 2^\circ$.

Tx Frequency:
13.75 - 14.50 GHz

Rx Frequency:
10.70 - 12.75 GHz

Tx Gain:
41.9 dBi (typical at 14.25 GHz)

Rx Gain:
41.6 dBi (typical at 11.70 GHz)

Tx XPD:
>30 dB within -1 dB contour

Rx XPD:
>28 dB within -1 dB contour

G/T: 20.5 dB/K at 11.70 GHz

Remarks:

1

Operations of the tracking has been tested on a Sea Simulator, with pointing error <0.2°.

Roll = $\pm 30^\circ/7$ sec.

Pitch = $\pm 10^\circ/5$ sec.

Yaw = $\pm 4^\circ/20$ sec.

In case of tracking error >0.2°, the ACU will directly inhibit transmission of the BUC.

2

The type approval tests were performed on three units with radome at the test range of Ofuna, Japan between the 26 September and the 1 October 2011.

3

The worst excess of the EESS masks in the Rx side is equal to 7.2 dB at 1.5°, 10.70 GHz in Elevation V polarization. The service quality in the receive side may be impaired for operations on satellites with less than 2.5° orbital separation from the adjacent one. Nevertheless, these operations may be exceptionally authorized according to a valid transmission plan.

**Applicant:**

mitsubishi electric corporation
2-7-3, Marunouchi Chiyoda-ku, Tokyo
100-8310, Japan
Tel : +81-3-3218-3346
Fax : +81-3-3218-9492
[Website : http://global.mitsubishielectric.com](http://global.mitsubishielectric.com)

Contact point:

Sato.Hiroyuki@ea.mitsubishielectric.co.jp

Certificate:

EA-V060

Antenna:

MVA60

Diameter:

0.62 m

Standard:

M

Approval date:

15-06-2012

System Description:

Stabilized maritime antenna equipped with linear polarized three ports feed (one Tx and two Rx) for the standard configuration and option 3; two ports feed for options 1 and 2, consisting of 0.6 m ring focus aluminum antenna with backfire feedhorn, with 750 mm diameter sandwich foam radome, with three axis stabilization platform and polarization axis and a conical scanning tracking. BUC 8 W NJRC model NJT5118NTME (Standard) and model NJT5218NTME (Option 2 and 3), LNA Mitsubishi Electric RB256718-G01.

Models Available:

Standard configuration (MVA60-DS8):14.00-14.50 GHz Tx and Rx orthogonal and parallel polarization
Option 1 (MVA60-DE8) :14.00-14.50 GHz Tx and Rx orthogonal polarization
Option 2 (MVA60-SS8) :13.75-14.50 GHz Tx extended band and Rx orthogonal
Option 3 (MVA60-SE8) :13.75-14.50 GHz Tx extended band and Rx orthogonal and parallel polarization

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):
31.0 dBW / 40 kHz for satellite orbital separations $\geq 1.5^\circ$
32.1 dBW / 40 kHz for satellite orbital separations $\geq 2.5^\circ$
33.2 dBW / 40 kHz for satellite orbital separations $\geq 3^\circ$

Tx Frequency:

13.75 - 14.50 GHz

Tx Gain:

37.3 dBi (typical at 14.25 GHz)

Tx XPD:

>30 dB within -1 dB contour

Rx Frequency:

10.70 - 12.75 GHz

Rx Gain:

35.6 dBi (typical at 11.70 GHz)

Rx XPD:

>26 dB within -1 dB contour

G/T: 15.0 dB/K at 12.50 GHz (parallel port)

15.5 dB/K at 12.50 GHz (orthogonal port)

Remarks:

1-Operations of the tracking has been tested on a Sea Simulator, with pointing error $<0.2^\circ$.

Roll = $\pm 30^\circ/7$ sec; Pitch = $\pm 10^\circ/5$ sec; Yaw = $\pm 4^\circ/14$ sec.

In case of tracking error $>0.2^\circ$, the ACU will directly inhibit transmission of the BUC.

2-The type approval tests were performed on three units with radome at the test range of Tsukaguchi, Japan between the 9 and 18 May 2012.

3-The worst excess of the EESS masks in the Rx side is equal to 8.4 dB (10.70 GHz) hence the service quality in the receive side may be impaired. Nevertheless, these operations may be exceptionally authorized according to a valid transmission plan.

4-The characterization's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.

5-Any change to the characterised configuration needs to be notified to Eutelsat and may be subject to further tests.

6- The polarization skew of the Eutelsat satellites is automatically taken into account in the ACU software via pre-programmed look-up tables.

**Applicant:**

Skyware Global
1315 Outlet Center Drive,
Smithfield, N.C. 27577
USA

Tel: +1 919 934 9711
Fax: +1 919 989 2274
Web Site: <http://www.skywareglobal.com>

Contact point: Hamid Moheb
mailto: hamidmoheb@skywareglobal.com

Certificate:

EA-V061

Antenna:

Type 965 Class I
(62-9615401)

Diameter:

0.96 m

Standard:

M

Approval date:

26-08-2015

Last submitted data:

30-07-2015 with report dated 08-08-2014

System Description:

Long focal length earth station for low and medium rate digital traffic; particularly suited for VSAT applications. Front fed offset configuration, feed with mode generator and rotary joint. Single piece 0.96 m SMC reflector. Two port die-cast OMT. Az/EI Mount with steel boom arm.

Configurations:

One standard configuration: type 965 Class I (fixed applications).
Feed: 6116784-13 ; Reflector: 6116021-11 ; Azel: 6116125-01
Designed for an installed power \leq 16Watt

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):

42.9 dBW / 40 kHz for satellite orbital separations \geq 2.5°

37.5 dBW / 40 kHz for satellite orbital separations \geq 2.0°

35.6 dBW / 40 kHz for satellite orbital separations \geq 1.5°

Tx Frequency:

13.75 – 14.50 GHz

Rx Frequency:

10.70-12.75 GHz

Tx Gain:

41.2 dBi (typical at 14.25 GHz)

Rx Gain:

39.5 dBi (typical at 11.70 GHz)

Tx XPD:

>30 dB within -1 dB contour

Rx XPD:

>28 dB within -1 dB contour

Windload – Pointing Error:

<0.4°

Remarks:

1-Class I is designed for operating with an assembly (LFL XPC Feed Horn, Overmode Die Cast Generator module, OMT 1 Transmit Reject Filter with Die Cast Mounting Block) weighting a maximum of 1.7 Kg.

2-To be operated for maximum wind speeds of up to 72 Km/h.

3- According to ITU (ref. ITU-R Radio Regulation N°5.502 and 5.503.), the antennas < 1.2m are not allowed to traffic at 13.75 – 14.00 GHz.

4-The Type 965 Class I was previously type approved on 01-04-2008 as EA-A035 (expired), with the reference Type 961 (62-9615401).

**Applicant:**

Skyware Global
1315 Outlet Center Drive,
Smithefield, N.C. 27577
USA

Tel: +1 919 934 9711

Fax: +1 919 989 2274

Web Site: <http://www.skywareglobal.com>

Contact point: Hamid Moheb

mailto: hamidmoheb@skywareglobal.com

Certificate:

EA-V062

Antenna:

2.4m dual optics Ku-band
(62-2445202)

Diameter:

2.4 m

Standard:

M

Approval date:

26/08/2015

Last submitted data:

30/07/2015 with report dated 28/01/2015

System Description:

General purpose earth station for digital transmission up to highest bit rates. Dual optics offset Gregorian configuration. Two piece SMC main reflector, aluminium sub-reflector in compact configuration. Two port Skyware Global OMT.

Configurations:

One standard configuration.

Feed + OMT: 610012602 ; Reflector: 6116124-08R ; Azel: 6116114-11R

Designed for an installed power \leq 16 Watt

Maximum Allowed EIRP density:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):

51.2 dBW / 40 kHz for satellite orbital separations \geq 1.5°

Tx Frequency:

13.75-14.50 GHz

Rx Frequency:

10.70-12.75 GHz

Tx Gain:

49.2 dBi (typical at 14.25 GHz)

Rx Gain:

47.5 dBi (typical at 11.70 GHz)

Tx XPD:

>35 dB within -1 dB contour

Rx XPD:

>35 dB within -1 dB contour

Windload – Pointing Error:

<0.4°

Remarks:

1-To be operated for maximum wind speeds of up to 72 Km/h.

2-The 2.4m dual optics Ku-band 62-2445202 was previously type approved as EA-A027 (expired) on 07-01-2005 with revision on 31-07-2008).

**Applicant:**

Skyware Global
1315 Outlet Center Drive,
Smithefield, N.C. 27577
USA

Tel: +1 919 934 9711
Fax: +1 919 989 2274
Web Site: <http://www.skywareglobal.com>

Contact point: Hamid Moheb
mailto: hamidmoheb@skywareglobal.com

Certificate:

EA-V064

Antenna:

Type 988 Class I
With Celio Transceiver

Diameter:

0.98 m

Standard:

M

Approval date:

21-08-2015

Last submitted data:

30-07-2015

System Description:

Long focal length Ka band VSAT antenna in combination with Celio Transceiver and Skyware Global Polarizer/Feed for circular polarization. Front fed offset configuration, manual polarization adjustment. Single piece 0,98 m SMC reflector. Top pole Az/EI Mount with SMC antenna back structure and steel boom arm suitable for a variety of different Transceivers.

Configurations:

Standard VSAT for fixed applications: Type 988 Class I

This approval covers only the utilization with the Celio 3 W Transceiver manufactured by Skyware technologies and the Ka band wideband Polarizer/Feed manufactured by Skyware Global, although this system is designed to work with a variety of Transceivers attached with different brackets to the feed boom. Each different Transceiver/Feed needs a separate approval.

Feed: FED080KA02 ; Reflector: 6116037 ; Azel: 1504808

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 7 dB/K of EUTELSAT 3B: (EESS 502, § 6.1 refers):

40.6 dBW / 40 kHz for satellite orbital separations $\geq 1.5^\circ$

Tx Frequency:

28.30 – 30.00 GHz

Rx Frequency:

18.30-20.20 GHz

Tx Gain:

47.6 dBi (average at 29.15 GHz)

Rx Gain:

44.1 dBi (average at 19.25 GHz)

Tx XPD:

>25.9 dB within -1 dB contour

Rx XPD:

>25 dB within -1 dB contour

Pointing Error: $\leq 0.3^\circ$ **G/T:** 22.1 dB/K, with a Transceiver of NF of

1.5 dB

Remarks:

1- Class I (Class II and III do not exist) is designed for operating with an integrated transceiver assembly Celio of Skyware Technologies in combination with the Skyware Global Ka wideband Polarizer/Feed weighting a maximum of 1.7 Kg.

2- To be operated for maximum wind speeds of up to 72 Km/h.

**Applicant:**

Skyware Global
1315 Outlet Center Drive,
Smithefield, N.C. 27577
USA

Tel: +1 919 934 9711
Fax: +1 919 989 2274
Web Site: <http://www.skywareglobal.com>

Contact point: Hamid Moheb
mailto: hamidmoheb@skywareglobal.com

Certificate:

EA-V065

Antenna:

Type 185 Class III
With Mode Matched Compensated Feed

Diameter:

1.8 m

Standard:

M

Approval date:

21-08-2015

Last submitted data:

30-07-2015

System Description:

Short focal length Ku band VSAT antenna in combination with Mode Matched (compensated) 2 ports, linear polarized feed/OMT for standard BUC/ LNB adaptation (WR 75 Flange). Front fed offset configuration, manual polarization adjustment by rotating the OMT while the feed remains fixed with the antenna feed boom. Single piece 1,8 m SMC reflector. Top pole Az/EI Mount with stable metal antenna back structure and steel boom arm.

Configurations:

Standard VSAT for fixed applications: Type 185 Class III
Feed: 611678501 ; Reflector: 6116118-11 ; Azel: 611610207
Designed for an RF Front End of up to 11 kg weight (25 lbs) and for and for an installed power ≤ 16 Watt

Maximum Allowed EIRP:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):
36.4 dBW / 4 kHz for satellite orbital separations $\geq 1.5^\circ$

Tx Frequency:

13.75 – 14.50 GHz

Rx Frequency:

10.70-12.75 GHz

Tx Gain:

46.7 dBi (average at 14.25 GHz)

Rx Gain:

45.0 dBi (average at 11.70 GHz)

Tx XPD:

>29 dB within -1 dB contour

Rx XPD:

>21 dB within -1 dB contour

G/T:

25.2 dB/K, based on a LNB NF of 0.8 dB

Remarks:

1-Class III (Class I and II do not exist) is designed for operating with standard BUC and LNB as separate units, maximum weight of the RF front end: up to 11.3 Kg (25 lbs).
2-To be operated for maximum wind speeds of up to 72 Km/h.

**Applicant:**

Skyware Global
1315 Outlet Center Drive,
Smithefield, N.C. 27577
USA

Tel: +1 919 934 9711

Fax: +1 919 989 2274

Web Site: <http://www.skywareglobal.com>

Contact point: Hamid Moheb

mailto: hamidmoheb@skywareglobal.com

Certificate:

EA-V066

Antenna:

2.4m single optics Ku-Band
Type 245 Class III Ku Band
Compensated 2 port feed

Diameter:

2.4 m

Standard:

M

Approval date:

21/08/2015

Last submitted data:

30/07/2015

System Description:

Short focal length Ku band VSAT antenna equipped with new developed mode matched feed/OMT for standard BUC/LNB with WR 75 flange for linear polarization. Two piece 2,4 m SMC reflector. Top pole Az/EI Mount with heavy metal back structure and steel boom arm suitable for RF front ends up to 11.3 Kg. (25 lbs).

Configurations:

Standard VSAT for fixed applications

Feed: 611678501 ; Reflector: 6116124-12 ; Azel: 611611407

Class III designed for a RF front end with a total weight of up to 11.3 kg or 25 lbs

Designed for an installed power \leq 16 Watt

Maximum Allowed EIRP density:

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502, § 6.1 refers):

37.4 dBW / 4 kHz for satellite orbital separations \geq 1.5°

Tx Frequency:

13.75-14.50 GHz

Rx Frequency:

10.70-12.75 GHz

Tx Gain:

49.2 dBi (average at 14.25 GHz)

Rx Gain:

47.5 dBi (average at 11.70 GHz)

Tx XPD:

>31 dB within -1 dB contour

Rx XPD:

>35 dB within -1 dB contour

G/T:

27.7 dB/K, assuming an LNB with 0.8 dB
NF

Remarks:

1-Class III (Class I and II do not exist) is designed for operating with standard BUC and LNB as separate units, maximum weight of the RF front end: up to 11.3 Kg (25 lbs).

2-To be operated for maximum wind speeds of up to 72 Km/h.