

## SEMSAT 12

### 1.2M Vsat Terminal

- **1.2M Ku-band reflector**
- **Full redundant Tx solutions**
- **1:1 LNB systems**
- **Full assembly kits**
- **4W to 50W RF**
- **Satellite modems**
- **Interconnection cables**
- **De-icing kits**



Sematron is proud to launch the SEMSAT product line, utilising industry leading components; Sematron can now offer turnkey Vsat solution for shipment 24/7, worldwide.

The SEMSAT range is a complete one-stop-shop allowing our customers the advantage of a single purchase order for all the Vsat needs.

SEMSAT assembly kits are available and ensure all auxiliary components are included and will allow your installation teams to do their jobs quickly and efficiently, reducing down-time and improving on-time delivery for the required service.

SEMSAT can also be offered in C-band with power level up to 80W.

#### Approvals:

- Intelsat approval number – IAO45A00
- AsiaSat approved
- EutelSat VSAR type approved
- ETSI Certification

Installation components including: Flexi and ridged waveguide, L-band interconnects from OMT to the BUC, fixing brackets and ties are supplied as part of the SMESAT kit

#### Power / EIRP Options

BUC Power (W)	EIRP (dBw)
4	49
8	52
12	53.8
16	55
20	56
25	57
30	57.8
40	59
50	60

## Specification

Operating Frequency (GHz)	Receive	10.95 – 12.75 GHz
	Transmit	13.75 – 14.5 GHz
Midband Gain (+0.2dB)	Receive	41.5 dBi
	Transmit	43.0 dBi
Antenna Noise Temperature	20° elevation	46 K
	30° elevation	43 K
G/T		19.2dB
Sidelobe Envelope, Co-Pol (dBi)	100λ/D θ < 20°	29-25 Log θdBi
	20° < θ < 26.3°	- 3.5dBi
	26.3° < θ < 48°	32 – 25 Log θdBi
	48° < θ	-10 dBi (averaged)
Cross-Polarisation within 1dB contour		-30 dB Max.
Any Angle off Axis		-25 dB Max.
VSWR		1:3:1 Max.

## Environmental Performance

Wind Loading	Operational	50 mph (80 km/h)
	Survival	125 mph (201 km/h)
Temperature	Operational	-40°C to 60°C
Rain	Operational	½" /hr
	Survival	2" /hr
Ice	Survival	½" radial
Solar Radiation		360 BTU/h/ft2

Atmospheric conditional salt, pollutants and contaminants as encountered in coastal and industrial areas.

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