


Fixed VSAT Earth Station

X-Band Terminals



MILEXIA





Milexia offers a range of
pre-commissioned X-Band
terminals for **fast, trouble-free
deployment, world-wide.**



Milexia Fixed VSAT Earth Station

X-Band Terminals

Milexia offers a range of pre-commissioned X-Band terminals for fast, trouble-free deployment, world-wide. With design features such as pre-configured 1:1 LNB feed arm assembly, BUC plate, solar shields and power distribution, the fixed earth station from Milexia is the professional choice for any VSAT deployment.

- 1.2M, 1.8M, 2.4M, 3.8M Reflector options
- Fully redundant RF chain both Tx and Rx
- Solar shields for extra solar radiation protection
- Power distribution for all equipment
- Pre-configured and assembled feed-arm

System options:

- Out of band Monitor and Control
- Fibre optic cross-site connectivity
- Reflector heating with rain/snow sensor
- Lighting protection and surge arresting
- Air-conditioned indoor equipment rack
- Also available in Ku and Ka band as single, dual or Tri-band packages.

01	Feed Arm Assembly
02	Outdoor Power Distribution Unit
03	Redundant BUC System





Feed Arm Assembly

Built as a single unit onto the feed arm to incorporate the Solar Shields, Feed Horn, OMT, Transmit and Receive Filters and 1:1 X Band LNB system, the Feed Arm Assembly simplifies on-site installation. The Feed Arm Assembly is tested for Transmit and Receive Insertion Loss, Transmit

to Receive Rejection, LNB Gain, Redundancy operation and pressure tested to ensure that it is watertight.

Surge protection is provided for the Cross Site cables.

Outdoor Power Distribution Unit

The Outdoor Power Distribution Unit has been designed to manage both AC & DC power requirements for the equipment at the antenna. It accepts two mains' feeds, one of which is UPS protected feeding the Transmission and reception equipment, the other providing mains power for the optional Antenna De-Ice. Both mains' inputs

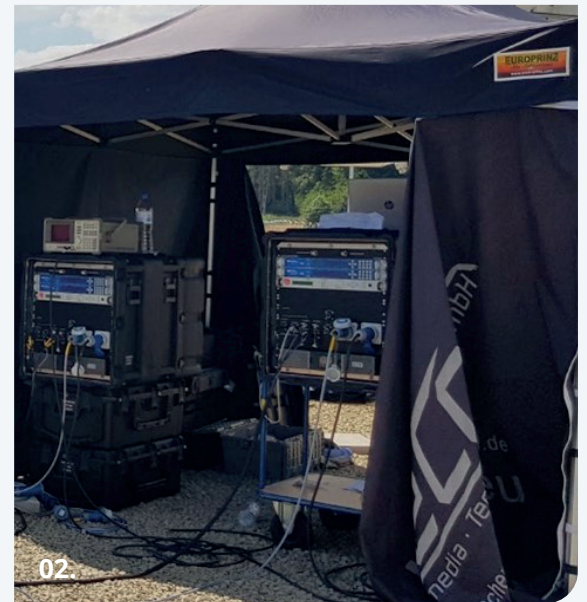
have RCD protection, and all outlets are MCB protected. A rotary isolator switch will remove all power from the system in the event of an emergency.

This unit is supplied with mechanical fixings for attaching to the antenna kingpost.

Redundant BUC System

The 1:1 BUC system is mounted on a plate and incorporates two X Band BUC amplifiers and a 1:1 controller. The high power output from the Redundancy system is connected to the Feed Arm assembly with Flexible Waveguide. Surge protection is provided for the Uplink Cross Site feed cable at the input

to the system. A Solar Shield is provided to be installed above the system to ensure that the effects of solar heating/radiation are reduced. The BUC System and the Solar Shield are supplied with mechanical fixings for attaching to the antenna kingpost.



-
- 01 Monitor and Control
 - 02 Indoor/Rack Equipment
-

Monitor and Control

Comprehensive M&C of the VSAT and baseband equipment is provided using our in house CAM M&C Platform which supports both local access and remote connectivity via Out of Band (Iridium, Globalstar and LTE connectivity) networks as well as through the Engineering Service Channel of the satellite modem link.

The local CAM server can be mounted at the antenna in a weatherproof housing, or indoors in a 19" rack mount unit. CAM is a peer to peer platform allowing multiple sites to be monitored by several operators at different locations.

Indoor/Rack Equipment

Typically the indoor/rack equipment will comprise a redundant Satellite Modem System, Traffic Router, UPS and M&C Network Management.

The indoor/rack equipment can be supplied with environmental air-conditioning for extreme temperature operation.

All of this can be supplied in a pre-wired flight case or in a 19" Equipment Rack for larger systems.

1.2, 1.8, 2.4 & 3.8 Metre X Band Antennas

Technical Specifications

Electrical ⁽¹⁾	Series 1134 X-Band	Series 1194 X-Band	Series 1244 X-Band	Series 1383 X-Band
Antenna Size	1.2 M	1.8 M	2.4 M	3.8 M
Operating Frequency (GHz) Receive Transmit	7.25 - 7.75 GHz 7.90 - 8.40 GHz	7.25 - 7.75 GHz 7.90 - 8.40 GHz	7.25 - 7.75 GHz 7.90 - 8.40 GHz	7.25 - 7.75 GHz 7.90 - 8.40 GHz
Midband Gain (+/- .5dB) / (+/- 2 dB (3.8M))	37.4 dBi 38.1 dBi	40.9 dBi 41.6 dBi	43.7 dBi 44.4 dBi	47.6 dBi 48.3 dBi
Sidelobe Compliant	DSCS Req.	DSCS Req.	DSCS Req.	DSCS Req.
Axial Ratio	1.0 dB	1.0 dB	1.0 dB	1.0 dB
VSWR	1.25:1 Max.	1.25:1 Max.	1.25:1 Max.	1.25:1 Max.
Antenna Noise Temp (Clear Sky) 10° 20° 30°	50 K 45 K 42 K	43 K 38 K 35 K	38 K 33 K 29 K	60 K 53 K 47 K
Port to Port Isolation	20dB	20dB	20dB	20dB

Mechanical	Series 1134 X-Band	Series 1194 X-Band	Series 1244 X-Band	Series 1383 X-Band
Reflector Material	Glass fiber reinforced polyester SMC			
Antenna Optics	One piece, offset feed, prime focus		Four piece, offset feed, prime focus	
Mount Type	Elevation over azimuth			
Elevation Adjustment Range	5° to 90°, continuous fine adjustment			12° to 90°, (0° to 15° Inverted)
Azimuth Adjustment Range	360° continuous, +30° fine adjustment			
Mast Pipe Size	2.5" SCH 40 pipe (2.88" OD)	5" SCH 40 pipe (5.6" OD)	6" SCH 40 Pipe (6.62" OD)	10" SCH 40 pipe (10.75" OD)

Environmental Performance		
Wind Loading	Operational Survival	50 mph (80 km/h) 125 mph (201 km/h)
Temperature	Operational Survival	-40° to 140° F (-40° to 60° C) -50° to 160° F (-46° to 71° C)
Rain	Operational Survival	1/2" / hr. 2" / hr.
Ice	Operational Survival	----- 1/2" radial
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas	
Solar Radiation	360 BTU/h/ft2	



Milexia are a technology distributor with **excellent supplier relationships** with the leading players in your industry.

We're here to help you source RF/ Microwave, Power and HMI components, Satcoms and Broadcast equipment and systems, Timing and Synchronisation products.

The Milexia Group has offices in the **UK, France, Italy, Spain** and **Germany**. Our group DNA is based on relationships with our customers and partners.

We want to share the knowledge and experience for your benefit.



M I L E X I A

Milexia Group | UK

Sandpiper House, Aviary Court, Wade Road
Basingstoke, Hampshire, RG24 8GX UK
+44 1256 812 222 | milexia.com/uk