

## 13.0m Ground Station Antenna GSA-103-L-xx-D

Temix GSA-103-L-xx-D 13.0m Ground Station Antenna is designed for worldwide transmit operations able to work in C, Ku, DBS and Ku/DBS Tx/Rx bands. This antenna system consists of an aluminium reflector and a galvanized mount that results in a high performance rigid antenna especially suited for hard environmental conditions.



- High efficiency, High precision and Strength.
- Subreflector, corrugated feedhorn and waveguide components are precisely processed by numerically controlled machines.
- Customized frequency bands available

### Main Features

- 2-Ports / 4-Ports feed LP/CP manual or remote switchable C/Ku RX only available

- Special Feeds:  
Multiband Feed available  
6-port LP feed Ku/DBS  
Rx: 10.70-12.75  
Tx1: 13.75-14.50  
Tx2: 17.30-18.40

- Other Feeds:  
INSAT  
(4.5-4.8; 6.725-7.025GHz)  
PALAPA  
(3.4-4.2; 6.425-6.725GHz)  
C-Band Super-extended  
(3.4-4.2; 5.850-6.725GHz)

- Excellent RF Performances:  
meets Eutelsat, Intelsat  
& MIL-STD-188-164B  
requirements

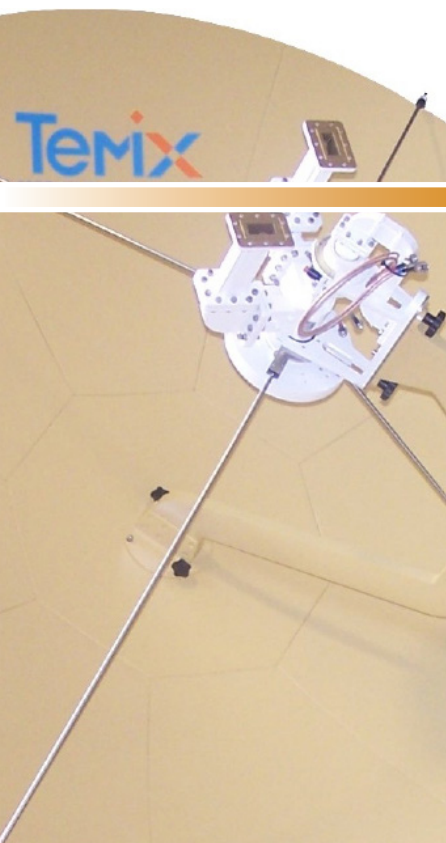
\*The Information included in this data sheet may be changed without advise. rev\_01/18

	C-Band	Ku-Band	DBS-Band	Ku/DBS-Band
Antenna Diameter	13.0m			
Optic Geometry	Dual Optic Cassegrain			
Antenna Feed	2/4-Port C-Band	2/4-Port Ku-Band	2/4-Port DBS-Band	6-Port Ku/DBS-Band
Polarization	Circular / Linear	Linear	Circular / Linear	Linear
Frequency Range (GHz)	Rx: 3.625-4.200 CP Rx: 3.600-4.200 LP Tx: 5.850-6.425	Rx: 10.70-12.75 Tx: 13.75-14.50 Tx: 13.75-14.80*	Rx: 10.70-12.75 Tx: 17.30-18.10 CP Tx: 17.30-18.40 LP	Rx: 10.70-12.75 Tx1: 13.75-14.50 Tx2: 17.30-18.40
Frequency Range (GHz) *optional	Rx: 4.500-4.800 Tx: 6.725-7.025	Rx: 10.70-12.25 Tx: 12.75-14.50	////	////
Frequency Range (GHz) *optional	Rx: 3.400-4.200 Tx: 5.850-6.725	////	////	////
Gain (midband)	Rx: 53.7 dBi Tx: 57.3 dBi	Rx: 62.0 dBi Tx: 63.6 dBi	Rx: 62.0 dBi Tx: 65.5 dBi	Rx: 62.0 dBi Tx1: 63.6 dBi Tx2: 65.5 dBi
G/T (20° EL, Clear Sky)	35.2 dB/K (30°K LNB, 3.9GHz)	40.5 dB/K (70°K LNB, 11.7GHz)	40.5 dB/K (70K LNB, 11.7GHz)	40.5 dB/K (70K LNB, 11.7GHz)
Cross Pol Isolation	>35dB 1dB Contour	>35dB 1dB Contour	>35dB 1dB Contour	>35dB 1dB Contour
Axial Ratio	< 0.5dB	////	< 0.5dB	////
Isolation Tx/Rx	85/85 dB	85/85 dB	85/85 dB	85/85 dB
Insertion Loss Tx/Rx	0.30/0.25 dB (2P) 0.35/0.30 dB (4P)	0.30/0.25 dB (2P) 0.35/0.30 dB (4P)	0.35/0.50 dB (2P) 0.50/0.70 dB (4P)	0.50/0.50/0.35 dB
Power Handling	2,5KW /port	2,5KW / port	1KW / port	1KW / port
Return Loss Tx/Rx	> 17.0 dB typ (Rx/Tx)			
Feed Interfaces	Rx: WR137 Tx: WR229	Rx: WR75 Tx: WR75	Rx: WR75 Tx: WR62	Rx: WR75 Tx1/2: WR75/62

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**Temix**  
communications



# 13.0m Ground Station Antenna GSA-103-L-xx-D

Mount Geometry	Elevation over Azimuth King-Post Mount
Travel Range (LMA)	AZ: +/- 60°; EL: 0° to 90°; POL: +/-110° (Linear Polarization); Continuous optional AZ 180° in two 100° overlapping sectors
Drive Speed (typical)	Slew: 0.1°/sec AZ & EL; 0.5°/sec POL (Linear Polarization) Tracking: 0.01°/sec AZ & EL
Antenna Controller	Antenna Control Unit for Accurate Antenna Pointing. <ul style="list-style-type: none"> <li>Automatic Satellite tracking: <ul style="list-style-type: none"> <li>Step-Track with Memory Track</li> <li>Program Track (Intelsat 11 Parameters, TLE)</li> <li>Inclined Orbit Satellites (up to 5°)</li> </ul> </li> </ul> Satellite Preset (Move to SAT, Move to Angle); Manual Positioning. Beacon Receiver (optional). Angle Readout AZ/EP/POL 0.01° Resolution. Ethernet SNMP Interface (optional: RS232, RS422, RS485, Web Browser)
Tracking Accuracy	within 10% of Receive Beamwidth
Motor Drive Unit	2-axes (3-axes for Linear POL) floor mounted Outdoor Cabinet, Inverter Based; Local/Remote Control; Manual Control of antenna axes. 16-bit Position Encoding, Hardware Limit Switches, Panic Button
Environmental:	
Wind	Operational: 72km/h; Gusting: to 97km/h; Survival 200km/h (stowed)
Temperature	Operational -20°/50°C; Storage -30°/60°C; (optional: -32°/55°C Operational, -40°/70°C Storage)
Solar Radiation	1000Kcal/h/m <sup>2</sup>
Humidity	100% Condensing
Ice	2.5cm survival
Altitude	up to 5000m

## Main Features

- De-Icing System for reflector and feed
- Environmental hub configurations
- Integrated transmit cross-axis kits
- Integrated LNA or LNB systems (single, 1+1, 2+1)
- GaN BUC, Frequency Converters and M&C systems
- Turnkey Installation, Commissioning and Testing
- Including Packing for sea transport

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Motor Drive Unit



Antenna Control Unit

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