



3.7m TRI-Band Nomadic Air-Transport Communication System



The TEMIX TRI-Band Nomadic Air-Transport Communication System is a specialized solution within the broader field of the rapid strategic mobility in a worldwide scenario covering all technical means and modes to be transported on two pallets qualified for the internal aerial delivery following the standard MIL-HDBK-1791 (HCU-6/E) and suitable for boarding on C130/C-27J. With its high expression of deployability engineering, it is a valuable solution to support short-term to semi-permanent mission-critical requirements for disaster recovery and first responder organizations with flyaway-like fast and easy deployment.

Who is Temix: Temix is an Italian Company in the telecommunications industry, supplying communications technology for Satellite, Wireless Networks and ICT infrastructures. Leading the telecommunications market with its own technical, engineering and support expertise, Temix is able to provide tailored solutions also in hybrid systems involving multiple integrated technologies.

Equipped with 3 interchangeable feed systems (C/X/Ku-band), the system includes a fully integrated high-performance satellite communications link able to operate in very extreme environmental conditions thanks to fully outdoor temperature controlled cabinets hosting all the equipment needed to warranty a reliable link. A fully automatic satellite acquisition system with "dual-mode 2/3-axes" operation provides also Tracking capabilities for Inclined Orbit Satellites; no setting or adjustments are needed on field to start the services. Easy and fast assembling of the main dish is required without the need of cranes or special tools; the system assembled in the "mount stow position" is erect from the Motor Drive Unit through a motorized jackscrew. A self contained already integrated basement permits the operations without the needs of ballasts. A De-Icing System is installed on main dish and feed, while a Dehydrator provides ideal operative conditions for the feed system. All the system can be remotely controlled and operated through an SNMP connection. Available also with fully redundant set-up, the system is operative in less than 4 hours.



◆ **TEMIX Communication Engineering**

Corso Michelangelo Buonarroti, 61/b
95039 Trecastagni (Catania) - ITALY
Tel. + 39 095 8996903
Tel. + 39 095 8880189
info@temix.it
www.temix.it



Satcom Division

- Up-links
- Networks
- Terminals (FlyAway & DSNG)
- EasyFLYSAT & TrackSat/B100



Wireless & ICT Division

- Wi-MAX/LTE Terminals
- PTP, PTMP, MESH
- Terminals (Portable OTM)
- EasyLINK



Turn-key solutions

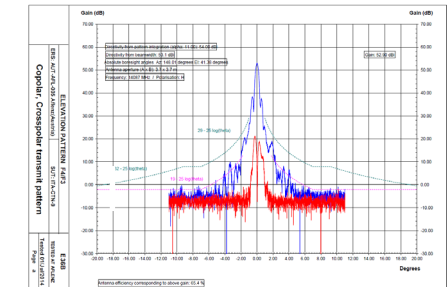
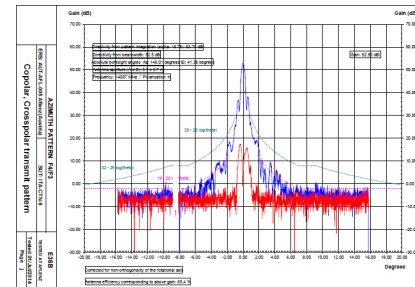
- Broadcasting & Multimedia
- Communications Carrier Grade
- Public Safety & Defence
- Customized Projects



	C-Band	X-Band	Ku-Band
Polarization	Circular/Linear	Circular	Linear
Frequency Range (GHz) - standard	Rx: 3.600-4.200 Tx: 5.850-6.425	Rx: 7.250-7.750 Tx: 7.900-8.400	Rx: 10.70-12.75 Tx: 13.75-14.50
Frequency Range (GHz) - optional	Ext. C-band, INSAT	////	Rx: 11.70-12.20 Tx: 12.75-13.25
Gain (mid band)	Tx: 45.4 dBi Rx: 41.5 dBi	Tx: 47.1 dBi Rx: 46.4 dBi	Tx: 52.2 dBi Rx: 50.6 dBi
G/T (30° EL, Clear Sky)	19.8 dB/K (*)	24.5 dB/K (*)	29.0 dB/K (*)
EIRP max (others available)	66.7 dBW (*) (with 200W BUC)	68.0 dBW (*) (with 150W BUC)	73.0 dBW (*) (with 200W BUC)
Cross Pol Isolation (XPD)	>30dB 1dB Contour	////	>35dB 1dB Contour
Axial Ration	< 1.06 dB	< 2 dB	////
Isolation Tx/Rx	120/90 dB	130/170 dB	120/90 dB
Optic Geometry	3.7m, Center Focus Dual Optic Cassegrain with corrugated horn		
Travel Range	AZ: +/-60°; EL: 0° to 90°; POL: +/-110° (Linear Polarization) Continuous		
Drive Speed	2°/sec deploy; 0.2°/sec peaking (Adjustable)		
Drive Control System	Antenna Control Unit, dual-mode 2/3-axes (CP/LP), Angle Readout with 16Bit Encoders, Hardware Limit Switches, Manual/Preset/Auto/Tracking Modes, Fully Automatic Satellite Autoacquisition, 50 Satellite Memory, Tracking modes Step-Track with Memory and Program (TLE and Intelsat 11 Parameters), Beacon Receiver, 3-axes MDU (Inverter Based)		
Mechanical	Elevation over Azimuth, Hot Deep Galvanized, Painting Green NATO IRR or others on request.		
Physical (including basement)	Pallet #1: dimensions 260x200x180cm, weight 1775Kg Pallet #2: dimensions 260x200x200cm, weight 1490Kg		
Electrical	110/240Vac 1-phase, 47/63Hz, total < 10KW including De-Icing		
(*) : parameters characterized at LNB and BUC flanges			
Customized Feed Systems (also 4-ports) available; tailored system on customer requirements			

Set-Up:

- Power Amplifiers Solid State GaN: 200W C-band, 150W X-band, 200W Ku-band standard; others available
- LNB: ext. ref. (opt. int.); C PLL 0.35dB NF, X PLL 0.8dB NF, Ku 10.7-12.75GHz with Multi-PLL 0.8 dB NF
- Antenna Control Unit, Beacon Receiver and Motor Drive Unit (including mount deploy)
- Power Temperature Control System
- Dish and Feedhorn Electrical De-icing with De-Icing Control System
- Dehydrator System
- Electrical Distribution Board (Short-Break and No-Break)
- Interface Control Panel



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