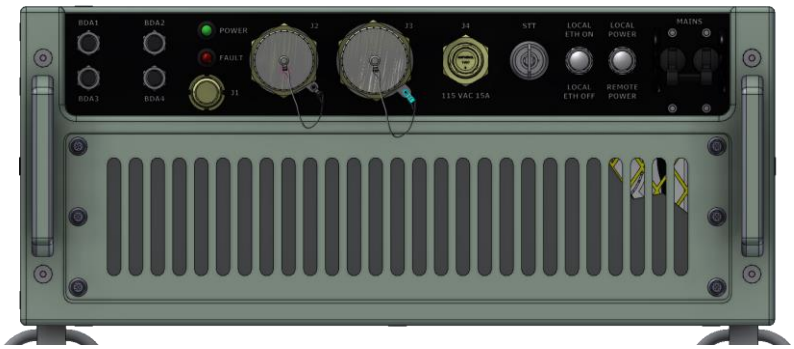
TSYS10XX|Dual Band|400-6000 MHz
HIGH POWER, HIGH DATA RATE MANET RADIO

Rack Systems

DESCRIPTION

The Triad RF Systems TSYS radio series has an all new band flexible RF section, providing dual band capability across a much wider range of frequencies. Two band options are provided, one primary and one alternate. Options range from 400 MHz – 6 GHz, depending on the terrain and application.



FEATURES

AC, DC or Dual Power Supplies
Forward Power Monitoring
Remote SNMP Control
MIL-STD Qualified
20 – 50 Watts Per Channel (4 Channels per Band)
Rack or Shock Mountable

GENERAL SPECIFICATIONS	
PARAMETER	**SPECIFICATION**
WAVEFORM	SILVUS - MOBILE NETWORKED MIMO (MN-MIMO™)
MODULATION	C-OFDM; BPSK, QPSK, 16-QAM, 64-QAM
CHANNEL BANDWIDTH	5, 10 & 20 MHZ
ENCRYPTION	AES 128 OR AES 256 (OPTIONAL)
FREQUENCY STABILITY	1 PPM OVER TEMP -40° - +85° C
TUNING STEP SIZE	1 KHZ
DATA RATES	65 MBPS UDP & 50 MBPS TCP
MAC PROTOCOLS	CSMA, TPMA, TDMA
ERROR CORRECTION	1/2, 2/3, 3/4, 5/6
ANTENNA PROCESSING	SPATIAL MULTIPLEXING, SPACE-TIME CODING, EIGEN BEAM FORMING
NO. OF SPATIAL STREAMS	1-4
NO. OF ANTENNAS	4

PERFORMANCE SPECIFICATIONS	
PARAMETER	**SPECIFICATION**
LATENCY	7 MS AVERAGE
SENSITIVITY	MAXIMUM: -102 DBM (5 MHZ B/W)
COFDM POWER OUTPUT	25 – 50 W OF BPSK, 5 - 12 W OF 64 QAM IN LOW OR HIGH BAND (ADJUSTABLE)

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MECHANICAL		
PARAMETER	**DESCRIPTION**	**UNIT**
DIMENSIONS (L X W X H)	RACK MOUNT - 17.72 X 24.15 X 7 (4 RACK UNITS) SHOCK MOUNT - 17.72 X 24.15 X 9.13 (WITH SHOCK MOUNTS INSTALLED)	in
RF CONNECTORS (OUTPUT)	N-TYPE FEMALE 8X	--
POWER CONNECTOR	115VAC connector 38999 series III, 2 pin, insert arrangement 11-2 (38999 B2) with 2x size 16 contacts	--
COMMUNICATIONS CONNECTOR	MIL-DTL-38999 SERIES III CONTAINING FIBER TX RX PAIR (8 FIBERS TOTAL)	--
COOLING	FORCED AIR	--
MOUNTING	WALL MOUNT (SHOCK MOUNTS INCLUDED) OR 19 INCH RACK	--
TRANSPORT	FRONT AND REAR PANEL RACK HANDLES INCLUDED WITH UNIT	

ENVIRONMENTAL / PROTECTIONS			
PARAMETER	**MIN**	**MAX**	**UNIT**
AMBIENT OPERATING TEMP.	-10	+50	°C
STORAGE TEMP RANGE	-60	+100	°C
HUMIDITY RANGE	0-95		%
ALTITUDE	0-50,000		ft.
SHOCK / VIBRATION	MIL-STD-810 AND EQUIVALENTS		--
EMI / RFI	DESIGNED TO COMPLY WITH MIL-STD-461 AND EQUIVALENTS		--
LOAD VSWR @ P1DB	OPEN / SHORT OUTPUT PROTECTION		--
THERMAL PROTECTION	USER-CONFIGURABLE ALARM / SHUTDOWN		--

CONTROL / MONITORING STANDARD FEATURES AND OPTIONS	
FEATURE / OPTION	**DESCRIPTION**
FORWARD POWER MONITORING	RMS POWER (MODULATION INDEPENDENT), PEAK POWER, OR ENVELOPE DETECTION AVAILABLE. THE OUTPUT CAN BE CONFIGURED TO REPORT POWER IN DBM, WATTS, VSWR, OR ANY OTHER FORMAT UPON REQUEST (E.G. SNMP VARIABLE, TCP/IP OR USER-DEFINED SERIAL MESSAGE)
TEMPERATURE MONITORING	TEMPERATURE SENSORS EMBEDDED IN AMPLIFIER MODULES REPORT SYSTEM TEMPERATURE TO THE FRONT PANEL AND TO ALL COMMUNICATION INTERFACES IN DEGREES C. PRE-PROGRAMMED WARNINGS CAN BE SET WHEN INTERNAL TEMPERATURES APPROACH THERMAL SHUT DOWN TEMP. OPTIONS ARE ALSO AVAILABLE TO OVERRIDE THERMAL SHUT DOWN IF REQUIRED.
FAN STATUS	FAN SPEEDS AND FAN LOCK DETECT CIRCUITS ARE MONITORED BY THE INTERNAL SBC. FAN FAILURE AND/OR BLOCKAGE ARE REPORTED TO THE FRONT PANEL AND ANY OTHER COMMUNICATION INTERFACES THAT ARE EQUIPPED.
AMPLIFIER STATUS MONITORING	VARIOUS AMPLIFIER PARAMETERS ARE MONITORED INCLUDING OPERATING VOLTAGE, CURRENT DRAW, TRANSMIT/RECEIVE STATUS (FOR BI-DIRECTIONAL UNITS) AND CASE TEMPERATURE. AMP FAILURE OR ANY OUT OF RANGE PARAMETERS ARE REPORTED TO THE FRONT PANEL AND THROUGH ANY OTHER COMMUNICATION INTERFACES THAT ARE EQUIPPED.