CUBIC MULTIBAND MINIATURE TRANSCEIVER

NET-CENTRIC DATA LINK SOLUTIONS

Cubic's Multiband Miniature Transceiver (MMT) is a small, affordable, programmable radio that can operate in UHF, L, S, C, and Ku RF bands. MMT provides the basis for two-way transport of video and IP data between airborne platforms and land or maritime users.

Paired with suitable antennas and amplifiers, MMT can provide reliable, secure communication links over hundreds of miles at data rates up to 44.73 Mbps. MMT is waveform programmable. It has been tested for interoperability with U.S. standard CDL and bandwidth-efficient CDL waveforms.

MMT can also be programmed with legacy and custom waveforms and can store more than a dozen, different, field-selectable waveform modes for even wider interoperability. MMT can operate with any CDL specification-compliant platform, including these examples:

AIRCRAFT

Shadow, Gray Eagle, Triton, Fire Scout, Predator, Reaper, unmanned vehicles; Apache, Kiowa, MH-60 AN/ARQ-59 Hawklink helicopters; and CDL-equipped targeting pods.

GROUND TERMINALS

AN/USQ-167 CDLS, AN/SRQ-4 Hawklink, Stinger, UGDT; Vortex, Rover, OSRVT, and Video Scout remote viewing terminals.

MMT runs CDL-standard and custom waveforms to interoperate with commercial data links and military intelligence, surveillance and reconnaissance systems.

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FEATURES	BENEFITS
■ Low required power and small size and weight footprint for installation flexibility.	■ Compatible with short-range tactical UAVs and larger manned and unmanned vehicles.
■ Multi-band reception and transmission (UHF/L/S/C/Ku).	■ Enables operation anywhere in the world.
■ AES encryption; optional Type-1 (U.S. only).	■ Facilitates flexible, tested secure communications.
■ Integrated video compression/ decompression	■ Simplifies integration and further reduces terminal footprint.
■ Transmit and receive data rates up to 44.73 Mbps.	■ Provides high-capacity IP channels for voice, data and video.
■ Web-browser operator and SNMP machine-to-machine control.	■ Eases human or machine control.

Physical Characteristics	
Size	5.4″ x 3.5″ x 1.2″
Weight	1.7 lbs
Power	31-35 W (10-33 VDC)
Reliability	MTBF > 10,000 hours
Environmental	
Vibration and shock	MIL-STD-810
EMI/EMC	MIL-STD-461
Operating temperature	-40˚C to +71˚C
Operating altitude	up to 50,000 feet
Performance Characteristics	
RF Transmit and Receive	
Ku-band	14.40-14.93 and 15.15-15.35 GHz
C-band	4.40-6.00 GHz
S-band	2.00-2.50 GHz
L-band	1000-1999 MHz
UHF	400-470 MHz
Other bands available	
Standard CDL	
Bandwidth Efficient (BE) CDL Rev B	200 kbps to 45 Mbps
466 ER	512 Kbps to 45 Mbps
Tactical 1.6, 3.2, 6.4	
VNW (planned for FY18)	
Video Processing	
MPEG-2	
Metadata: Brite Star, MISB 601.1, MISB 601.2	
H.264/MPEG-4 AVC/Part 10	
Data Interfaces	
Ethernet	IPv4; IPv6 available
	Unicast or multicast
	Router optional
RS-232/422	
Analog RS-170 video in/out (NTSC and PAL)	
Analog audio in/out	
Control interfaces	STANAG 4586, Web GUI, Common Control Interface (SNMP)
Encryption	
Removable Type-1 module	
Advanced Encryption Standard	

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