

ULTRA HIGH-SPEED COMMUNICATIONS ON-THE-MOVE

- Ship to shore or ship to ship
 - Ship to air
 - Vehicle to vehicle
- Fibre speed (up to 10Gbps)
 - E-Band Transmission
- Direct line of sight communications (no satellite)



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E-band line of sight stabilized radio terminal

EM Solutions in partnership with EMClarity are proud to announce the merger of two leading edge technologies from their satellite communications terminals and terrestrial microwave links product suites, to provide the fastest ever long distance radio communications links between any two moving platforms.

Now in trials with the US Navy, the new Exomux mobile platform provides for the first time ever the ability to backhaul traffic over a 10Gbps line-of-sight link between any two moving platforms, where either end can be moving at high speed and in turbulent conditions on land, in the air, or at sea.

EM Solutions, a leader in defence satellite communications on-the-move terminals, brings its expertise in electromagnetics, antenna design, and patented monopulse link stabilisation technology to EMClarity's ultra low latency, high speed, E-band Exomux radio. Using the same technology that connects the servers of the New York Stock Exchange with those of Nasdaq for financial traders, the Exomux provides in a single package the longest range and fastest E-band backhaul links commercially available.

Now being demonstrated for both defence and commercial markets such as oil and gas, the new Exomux mobile platform at either end of a line-of-sight link automatically finds its partner at the other end, and remains locked together so data at speeds of 10Gbps can be passed in both directions between the two ends.

Benefits:

- Direct line of sight communications (no satellite)
- No spectrum or bandwidth restrictions
- Low probability of intercept communications (beamwidth ½ degree)
- 10 Gbps pipe with gigabit Ethernet IP input
- Compensates for all types of motion
- 20km land range (clear weather), 100's of km in free space

For more information, please contact:

Commercial markets

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SPECIFICATIONS

SPECIFICATIONS	
Antenna Size	75cm
Frequency	E-band (70 to 86 GHz)
Throughput	Up to 10 Gbps
Range	Greater than 25 kilometres (clear weather)
Modulation	QPSK, 16QAM
Polarisation	Circular (electronically switchable)
Data Interface	2 x 10 Gbps Optical SFP IEEE 802.3ae compliant
Latency	10GE Full Ethernet full regen, Full LDPC FEC terminal - 250ns
	10GE ULL Interface with Optimised FEC - 155ns
	IF Repeater - <30ns
Gross system budget	> 192 dB for Full regen QPSK with Full FEC (@ Overall BER)
Network Management System interface	SNMP based messaging interface via Ethernet port from each radio, Web User Interface with password protection
Power Supply	48V (32 to 60V) DC
Configuration	All outdoor unit with integrated antenna
Operating Temperature Range	-25 to 50°C (-13 to 122 F) in full sun
Wind Speed	65mph (105km/hr) operational
Environment rating (System)	IP55
Design Life	10 years (excluding consumable components)