MobiBridge 10G Radio

ELVA-1
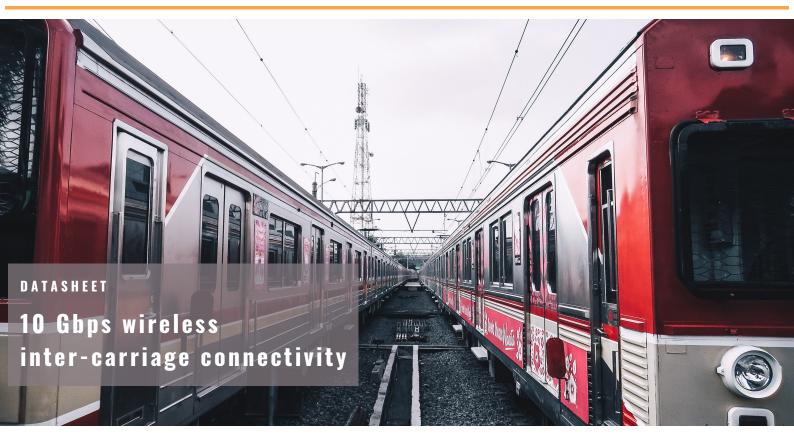Millimeter Wave Division

10 Gbps wireless inter-carriage connectivity

CONNECT TRAIN CARRIAGES, VESSELS AND PUBLIC TRANSPORT VEHICLES

ELVA-1 MobiBridge 10G is all-weather universal radio link for true 10 Gigabit connectivity between train carriages, vessels to in-port broadband Internet access, public transport to the Internet at stops.

MobiBridge radios support 7 sub-bands within 57-to-71 GHz V-band license free frequency spectrum to comply with national regulation requirements worldwide. Each radio has a built-in electronically scanned antenna to search for other side radios and establishes the connection automatically.

DYNAMIC 10 GBPS CARRIAGE COMPOSITION

For railways operators, ELVA-1 MobiBridge 10G provides the ability to dynamically create an end-to-end 10 gigabit network across the train. This is convenient for often carriage recomposition, changing the number of carriages on the train, depending on the route demand or seasonal load.

If a train is equipped with a data storage, at the stations it is possible to upload and download videos and other large files that passengers exchange with friends or colleagues.

KEY FEATURES:

- Throughput up to 10 Gbps
- Full duplex mode
- License free spectrum
- 7 sub-bands @2000 MHz
- Distance range up to 500 m
- Universal design for rail transport, vessels and buses
- Automatic setup and configuration
- Easy to install

WORLD'S FIRST 10GE INTER-CARRIAGE CONNECTIVITY

The world's first 10 Gbps per channel, ELVA-1 MobiBridge is designed for 5G complimentary wireless communication between carriages. For data upload & download on a station, it allows up to 10 m distance between the ground and train radios at stable 10GE connectivity.

The solution easily adapts for similar applications like communication of the vessel with radio at the pier, wideband connection of public transport at stops.

MobiBridge radio is provided to customers for testing in a prototype box. The final case is manufactured according to the customer's requirements.

MobiBridge 10G Specifications

Model	MobiBridge 10G
Max Throughput	**10Gbps Full duplex**
Max Channel Bandwidths	2000 MHz
Modulation	QAM-128 to BPSK
Adaptive rate	Hitless adaptive bandwidth, coding and modulation
Max Range depending on modulation	**10 m @QAM128 / 500 m @BPSK**
Ethernet Interface	1×SFP+ 10GBase-LR/SR, service 1xCopper 1000/100Base-Tx
Antenna	Built-in to radio unit
Ethernet	Transparent for Ethernet services, Flow Control 802.3x, PTP
Power Supply	PoE 20W
Power Connection	IP-65 [optional IP-68]
Operational Temperature	-50 C to +60 C / -58 F to 140 F
Humidity	Up to 99%
Radio unit size	16x12x3 cm (Depends on customer specifications)