V2X/V2N MobiBridge 10G Datasheet





10 GBPS V-BAND WIRELESS RADIO LINK FOR PUBLIC TRANSPORT SOLUTIONS

MobiBridge 10G is an exceptional mmWave wireless connectivity solution providing a fullduplex true 10 Gbps link between the light rail or buses and a network (V2N, vehicle to network).

Other applications include a wireless connection of train carriages within inter-train network, public transport communications at stops and under move, wideband Internet access for cruise ships and ferries moored to the piers, wideband Internet access to aircrafts at airports and for other short-range ultra-wideband applications.

The radios support up to 7 sub-bands of unlicensed V-band (57 to 71 GHz) and are equipped with a built-in electronically scanned antenna with auto-connect functionality.

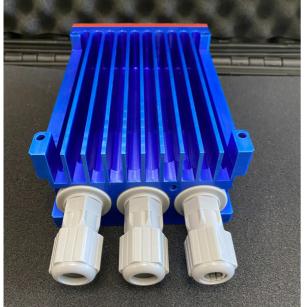
This V-band mmWave solution assures operational efficiency, ease of use and IP65/IP68 all-weather protection.

- 10 Gbps data transfer rate
- Full duplex mode
- 1 TB of data downloads in 14 minutes
- Unlicensed frequency band 57 to 71 GHz
- Subbands @2000 MHz
- Adaptive modulation up to QAM256
- Automatic configuration
- IP65 / IP68 case and open-frame versions



APPEARANCE, CONNECTORS AND MOUNTING POINTS







Aluminium case with radiator sections for good cooling of electronic components

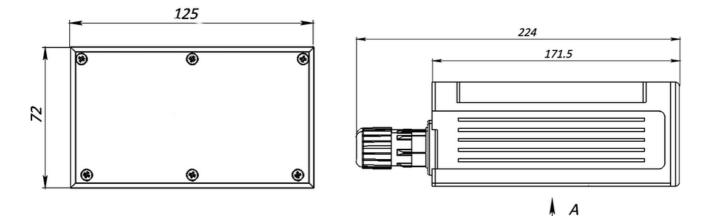
Three sealed cable outlets with connectors according to IP-65/IP-68 protection class:

- SFP+ 10GBase-LR/SR data socket
- 1000Base-Tx monitorng socket (PoE enabled)
- DC power socket

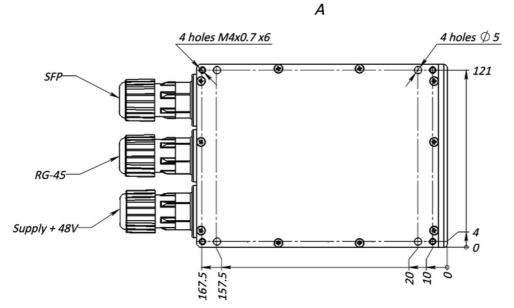
- The standard case has 4 points for fasteners with Ø5 mm holes
- It is possible to manufacture a custom case according to vehicle design

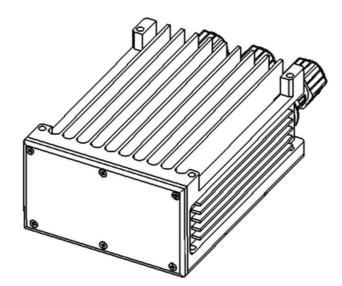


DIMENSIONAL DRAWING OF PRODUCT IN STANDARD CASE











10 GBPS WIRELESS UPLOAD/DOWNLOAD CONNECTIVITY AT DEPOT



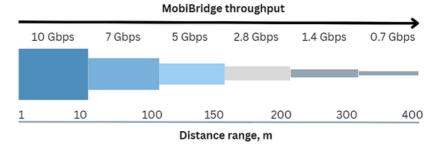
MobiBridge 10G is the industry-first 10 Gbps per channel radio designed to download and upload video, data and other content to light rail, metro trains and buses at stops and depots, as well along the routes.

Railway operators can install radios between carriages to create an end-to-end 10 Gigabit network throughout the train. Due to the compact size of MobiBridge 10G, it is convenient for frequent rearrangement of carriages depending on the needs of a particular route.



MobiBridge 10G Specifications

Maximum throughput Distance range Unlicensed band Occupied bandwidth Ethernet ports Antenna type Antenna scanning sector Ethernet data streams Power over Ethernet Enclosure protection Ambient temperature Relative humidity Enclosure size



10 Gbps full duplex (within 0.5 to 10 m range)
0.5 to 400 m
57 to 71 GHz
7x 2000 MHz with adaptive modulation QAM-256 to BPSK
1 × SFP + 10GBase-LR / SR, service 1xCopper 1000/100Base-Tx Built-in electronically scanned
± 45 ° horizontal with 60 ° vertical sector
Transparent for all services Ethernet, Flow Control 802.3x, PTP
PoE cable 30 W, 12 - 75 V DC
IP-65 (optionally IP-68)
-50 to + 60 °C / -58 to 140 °F
up to 99%
172x224x125 mm or custom-designed



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