



# Ultra-high Speed Data Offloading for Mass Transit Fleet

**UPLOADING 600 GB OF DAILY CAMERA RECORDINGS IN 10 MINUTES**

MobiBridge-10G is an exceptional mm-wave wireless connectivity solution, offering a full-duplex, true 10 Gbps link between the vehicle and the operator's network at any fixed points, featured with MobiBridge-10G AP (access point). Each radio has a built-in antenna with a wide 3D beamforming feature for automatic connection.

ELVA-1's radios support ultra-fast data downloads for autonomous vehicles to update navigation information. In a typical 20-minute charging session, you can load up to 1.2 TB of data into a driverless electric car. This feature sets the MobiBridge-10G apart and positions it as a unique and unparalleled solution in the market.

The applications encompass public transport communications at parking lots, wireless interconnection of train carriages, wideband Internet access for cruise ships and ferries at piers, and various wideband apps.

MobiBridge-10G significantly reduces the downtime of mass transit fleets for data offloading operations.



**10 Gigabit  
per second  
full duplex**

## MobiBridge Highlights

- Automatic configuration
- 10 Gbps data transfer rate
- Full duplex mode
- 600 GB of data offloading as fast as 10 minutes
- Unlicensed band 57 to 71 GHz
- 3D beamforming (90°/40° sectors)
- Subbands @2000 MHz
- Adaptive modulation QAM128
- IP65 / IP68 case and open-frame version
- Low visual impact

# Lightning-fast wireless upload/download connectivity



ELVA-1's Mobibridge-10G wireless Ethernet overcomes challenges seen in current offload solutions, including:

- 5G technologies favour download speeds over upload speeds and are associated with traffic costs.
- Standard Wi-Fi solutions (5.xGHz / 2.4GHz) hinder connectivity when multiple vehicles are parked together.
- Interference from other Wi-Fi systems on the same bands can degrade data offload performance.

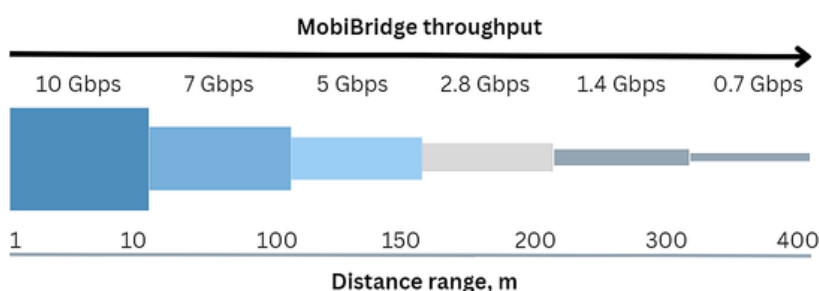


MobiBridge-10G offers automatic connectivity for all types of vehicles upon their arrival at the station or upon completing their journey, whether at the depot or any other parking area.

The device is built on mm-wave technology operating at the unlicensed 60 GHz band, providing ultra-high throughput of 10 Gbps for wireless data offloading.

MobiBridge-10G's small footprint and automatic connection feature make this radio link an ideal solution for upgrading stations and parking areas with high-speed wireless data transfer points.

## MobiBridge-10G Specifications



Maximum throughput

Distance range

Unlicensed band

Occupied bandwidth

Ethernet ports

Antenna type

Antenna 3D scanning sectors

Ethernet data streams

Power over Ethernet

Enclosure protection

Ambient temperature

Relative humidity

Enclosure size (or custom-designed)

10 Gbps full duplex (within 0.5 to 10 m range)

0.5 to 400 m

57 to 71 GHz

2000 MHz with adaptive modulation QAM-128 to BPSK

1 × SFP + 10GBase-LR / SR, service 1xCopper 1000/100Base-Tx

Built-in antenna with beamforming feature

±45° horizontal sector with ±20° vertical sector

Transparent for all services Ethernet, Flow Control 802.3x, PTP

PoE cable 30 W, 12 - 75 V DC

IP-65 / IP-68

-50 to + 60 °C

up to 99%

120x294x88 mm

