



Trimble FCI-2700

802.11ac VEHICULAR CLIENT WITH MIMO SUPPORT

The Trimble FCI-2700 is an industrial strength 802.11a/b/g/n/ac Wi-Fi client. It is designed for customers that want a reliable outdoor W-Fi network. The FCI-2700 (also known as the eCone) provides a rugged Wi-Fi client that is easy to install on vehicles and has lower total installation costs than alternatives.

RUGGED, RELIABLE WI-FI

Often, wireless coverage for vehicle mounted computers is inconsistent in large area outdoor applications. The glass and steel of the vehicle cab obstructs the wireless signal from reaching the internal antenna of the vehicle mounted computer as it moves around the operational coverage area.

The Trimble eCone FCI-2700 significantly improves network reliability by putting the entire wireless router along with the antennas in a robust, IP67 enclosure outside the vehicle. The interface to the eCone is a single Ethernet connection and the unit is powered directly from vehicle power – either 12V or 24V.

EXTENDED RANGE

The eCone provides extended range and improved coverage on any IEEE 802.11a/b/g/n/ac wireless network. The eCone contains four internal antennas to support 2x2 MIMO functionality and supports both 2.4 and 5GHz frequency bands.

GEOLOCATION

The unit features an internal Trimble Condor 1011 GPS to enable monitoring of vehicle location for wireless network mapping and enhanced troubleshooting.

PROVEN APPLICATIONS

eCones have been used for over ten years in seaport container terminals throughout the USA to enable reliable communications for container handling equipment and other vehicles.

SUPPORT

Trimble has significant RF expertise to help you during procurement, design and installation as well as for future network troubleshooting. Trimble also offers an Annual Product Service Agreement which allows you to get a replacement eCone within 24 hours.

SOLUTION DETAILS

Simple Installation

The quickest and simplest way to install an eCone on any vehicle is by using the optional magnet kit. The magnets are rated at 112 lbs. pull force each and simply screw into the eCone base. eCone can also be attached via screws or other hardware.

Built For Industrial Use

The client bridge is housed in a Lexan dome and has a corrosion resistant powder coated base. The inner electronics are suspended on an isolated platform, to reduce the stress from vehicle vibration.

COMPATIBLE WITH ANY 802.11 WIRELESS NETWORK

The FCI-2700 is the perfect complement to any 802.11 a/b/g/n/ac access point. The Trimble eCone delivers industry leading wireless performance ideally suited for the challenging conditions found in industrial Wi-Fi environments.

Key Features

- ▶ High Performance
 - 2x2 MIMO
 - 4 antennas, each 5+ dBi gain
 - Dual Frequency: 2.4 GHz and 5 GHz
 - Works as bridge, router, or repeater
 - IEEE 802.11 a/b/g/n/ac compliant
- ▶ Easy to Install & Maintain
 - Support for both 12V and 24V electrical systems
 - Power over Ethernet
 - Magnet or flange for mounting
 - Wireless link monitoring and testing utilities
 - On-call technical assistance
- ▶ Ready for Harsh Environments
 - Rugged enclosure with shock-mounted electronics



TRIMBLE FCI-2700 eCone

RF SPECIFICATIONS

	DataRate*	802.11n HT MCS Index	802.11ac VHT MCS Index	TX Power (2 chains)	Sensitivity (+/- 2dBm)
802.11b/g	6Mbps	—	—	24dBm	-94dBm
	54Mbps	—	—	21dBm	-80dBm
2.4 GHz 802.11n HT20	14.4Mbps	MCS 8	—	24dBm	-94dBm
	144.4Mbps	MCS15	—	19dBm	-77dBm
2.4 GHz 802.11n HT40	14.4Mbps	MCS 8	—	23dBm	-93dBm
	144.4Mbps	MCS 15	—	19dBm	-75dBm
802.11a	6Mbps	—	—	23dBm	-94dBm
	54Mbps	—	—	20dBm	-80dBm
5 GHz 802.11 n/ac 20 MHz Channels	14.4Mbps	MCS 8	MCS 0	23dBm	-93dBm
	144.4Mbps	MCS 15	MCS 7	19dBm	-75dBm
	173.3Mbps	—	MCS 8	18dBm	-73dBm
5 GHz 802.11 n/ac 40 MHz Channels	30Mbps	MCS 8	MCS 0	23dBm	-93dBm
	300Mbps	MCS 15	MCS 7	17dBm	-73dBm
	400Mbps	—	MCS 9	17dBm	-73dBm
5GHz 802.11ac 80 MHz Channels	65Mbps	—	MCS 0	23dBm	-89dBm
	866.7Mbps	—	MCS 9	17dBm	-68dBm

* Data rates provided here are theoretical maximum rates.

HARDWARE

Physical and Electrical

Dimensions 8.5" x 9.25" diameter
 Weight 3.75 lbs

Power Draw 6.62W (MAX)
 Supply Voltage (into FCI-2601 PoE) 9VDC to 24VDC
 Supply Voltage (direct to eCone) 8 VDC to 42 VDC
 Electrical Interface Ethernet 10/100/1000 with PoE
 Operating Temperature -40 C to +85 C
 This is the temperature recorded at the temperature sensor inside the eCone.
 The reading will be higher than the ambient temperature.

Storage Temperature -40 C to +85C
 Water Ingress Protection IP67 rating
 Magnetic Mount (optional) 3 x 41mm diameter circular magnets, 112 lbs pull force

NETWORKING FEATURES

Packet Forwarding Modes Bridge/Repeater/Router
 Firewall/Multicast Forwarding/NAT Router Mode
 Security WPA2/WPA/WEP/EAP-TLS/RADIUS
 Support for Wireless Performance Tuning RTS/Fragmentation
 Management and Monitoring WEB accessible GUI
 Roaming Ability to set handoff thresholds
 Channel Scanning Ability to set scanning channels

GPS RECEIVER

Trimble Condor 1011 GPS NMEA strings available for location monitoring

Specifications subject to change without notice.

WORLDWIDE

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