ANTENNAPLUS by Airgain

MULTIMAX™ FV 3-in-1

High Performance External Antenna designed for Panasonic

The MULTIMAX FV 3-in-1 is a vehicular antenna equipped for the CF-20 or any Panasonic notebook or tablet that includes MIMO LTE but does not have a dedicated GPS modem. The MULTIMAX FV 3-in-1 has two high gain Cellular/LTE antennas, including support for FirstNet™ LTE Band 14, and a GNSS antenna. All three antennas connect with the use of a Power Divider that takes the Cellular/LTE and GNSS signals, allowing them to connect to the dual pass through docking station. This provides a GNSS external antenna solution for the GPS that is running through the embedded Aircard.

- 2 x Wideband Cellular/LTE Elements (MIMO)
- 1 x GNSS Element
- Three embedded antenna technologies that operate over multiple bands in one housing
- Leading LTE performance while in coexistence with multiple other embedded antenna technologies
- Lower profile and smaller footprint than competing solutions
- High gain provides bigger cellular footprint
- Must be mounted on metal
- Available in black or white
- US Patent 10109918

Optimal MIMO Performance for LTE

Compact and Robust UV Resistant Housing

Outdoor Installation Ready

GNSS

Low loss cable

Fast custom turnaround time

Bolt Mount with Adhesive Pad

Descriptions/Applications

The MULTIMAX FV antenna builds on the best in class RF performance, leading design features, and extended operational life of our highly successful Fleet and Public Safety Antenna products. Like all our antennas, this product has been designed to provide greater protection against natural hazards a vehicle faces including vibration, tree branch sweeps, heat, cold, ice, salt, dirt, and water. Airgain antennas typically outlast the life of a vehicle.

Standard Configurations

AP-PAN-MMF-CCGPD-Q-BL-19 **Panasonic P/N: AI-3MDCBL19**	MIMO Cell/LTE x 2, & GNSS, Threaded Bolt Mount, SMA on Cell/LTE & GNSS, Black, 19ft coax
AP-PAN-MMF-CCGPD-Q-WH-19 **Panasonic P/N: AI-3MDCWH19**	MIMO Cell/LTE x 2, & GNSS, Threaded Bolt Mount, SMA on Cell/LTE & GNSS, White, 19ft coax

Electrical Data

Frequency Range	Elements 1 & 2	698-960/1700-2700 MHz	
	Element 3	1550~1610 MHz	
Operational Bands	Elements 1 & 2	LTE/Cellular	
	Element 3	GPS L1/GALILEO E1/GLONASS G1/BeiDou B1/QZSS L1	
Peak Gain: Isotropic	Elements 1 & 2	698-960 MHz	3 dBi
		1710-2700 MHz	6.5 dBi
	Element 3	50 dBi 28 dB	7 dBi, 5 dBi
Isolation	Elements 1 & 2	> 10 dB	
Correlation Co-efficient	Elements 1 & 2	< 0.1	

Environmental Data

Hazardous Substances	RoHS Compliant
Temperature	-40ºC to 65ºC (-40ºF to + 149ºF) Operating and Storage conformance to IEC 60068
Humidity (Non-Condensing)	5% to 96% Operating and Storage conformance to IEC 60068
Water Ingress	IP65
Military Spec	MIL-STD 810 conformance to vibration

Mounting Data

Dimensions	Height	2.47” (62.6mm)
	Width	2.44” (62.1mm)
	Length	6.34” (161mm)
Color	Black (BL) or White (WH)	

Cable Data- Cell/LTE

Type	CFD195 Low Loss
Diameter	0.195” (4.953 mm)
Length	1 feet (0.3 m)
Termination	SMA Male

GNSS Data - Ceramic Patch Antenna Specification

Bandwidth	1561 – 1602 MHz
Gain@Zenith	2.5 dBi
Polarization	R.H.C.P.
Axial Ratio	3.0 dB Typ.

GNSS Data - LNA Specification

Noise Figure	1.2 dB
Gain	28 dBi
Voltage	3.3V~5.6V
Current	9.6±1mA@3.3V