Semtech Antenna – 6-in-1 Dome 5G

The 6-in-1 Dome has been tested and certified to operate with AirLink LTE routers and gateways.

It has a low profile design that contains six isolated high performance antenna elements in a single housing for optimal coverage; two ultra-wideband elements spanning 617-960/1710-6000MHz support MiMo at LTE and 5G NR frequencies; a high performance (advanced filtering) GNSS antenna with an integrated 26dB gain LNA, and three dualband 2.4/5GHz Wi-Fi elements that provide 3x3 MiMo Wi-Fi.

The antenna is ground plane independent, and maintains a high level of performance even when mounted on a non-metallic surface.

		Specification	
PART NO.			
		6001363 (White)/6001364 (Black)	
ELECTRICAL DATA			
Frequency Range	Cellular	617-960/1710-6000 MHz	
	Wi-Fi	2.4/4.9-6GHz	
Operational Bands	Cellular	2G/3G/4G LTE/5G NR Sub6	
	Wi-Fi	2.4/5.0GHz Wi-Fi	
Peak gain: Isotropic*	Cellular	617-960MHz	5dBi
		1710-3800MHz	9dBi
		4900-6000MHz	10dBi
	Wi-Fi	2.4/4.9-6.0GHz	8/10dBi
Typical Efficiency	Cellular	> 70%	
	Wi-Fi	> 80%	
Isolation	Cellular	> 12dB	
	Wi-Fi	> 20dB	
Correlation Co-efficient	Cellular/Wi-Fi	< 0.1	
Polarisation		Vertical	
Impedance		50Ω	

* Simulated off a groundplane and does not include cable attenuation

		Specification
GPS/GNSS DATA		
Frequency Range		1562-1612MHz
VSWR		<2:1 ± 4MHz
Typical Noise Figure		-2.7dB
Gain: LNA		26dB
Notch Filter Rejection @787MHz		23dBm
Operating Voltage		3-5V DC
Approval		E11
Current		<15mA
MECHANICAL DATA		
Dimensions	Height	75mm (3")
	Diameter	180mm (7.1")
Operating Temp		-40° / +80°C (-40°/ 176°F)
Material		ASA & Diecast Aluminium
Colour		Black/White
Ingress Protection		IP69K
MOUNTING DATA		
Mounting Type		Bolt Mount
Mounting Hole		19mm (3/4")
CABLE DATA		
Cell / LTE Cables	Type	C32
	Length	5m (16ft)
	Termination	SMA Plug
GPS Cable	Type	CS29
	Length	5m (16ft)
	Termination	SMA Plug
Wi-Fi Cables	Type	CS32
	Length	5m (16ft)
	Termination	RP-SMA Plug

About Semtech

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

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