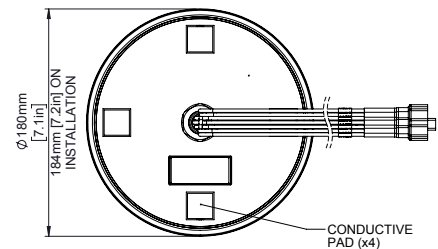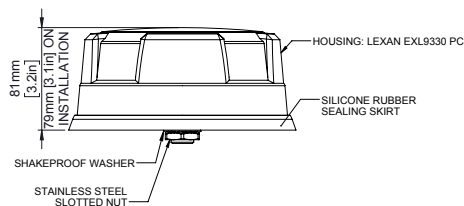## Semtech Antenna – 10-in-1 Dome

The 10-in-1 Dome is a custom 5G single antenna solution for the AirLink XR80, tested and certified for mobile and fixed application.

The antenna has a low-profile design that contains ten isolated high-performance antenna elements in a single housing for optimal coverage; four ultra-wideband elements spanning 617-6000MHz; a high performance GNSS antenna with an integrated 26dB gain LNA; and 5x5 MIMO dual band 2.4/5GHz Wi-Fi elements.

		Specification	
PART NO.			
		6001354 (Black)/6001355 (White)	
ELECTRICAL DATA			
Frequency Range	4G/5G Elements	617-960MHz / 1710-6000MHz	
	Wi-Fi Elements	2.4/4.9-6GHz	
Peak gain: Isotropic*	4G/5G Elements	617-960MHz 1710-3800MHz 4900-6000MHz	4dBi 6dBi 6dBi
	Wi-Fi Elements	2.4 GHz 4.9-6.0GHz	5dBi 7dBi
Isolation*	4G/5G Elements	> 10dBm	
	Wi-Fi Elements	> 12dBm	
Typical Efficiency	4G/5G Elements	617-960MHz 1710-3800MHz 4900-6000MHz	>50% >60% >35%
	Wi-Fi Elements	2. 4GHz 5.0GHz	>60% >45%
Correlation Co-efficient	4G/5G Elements	<0.2	
Pattern		Omni-directional	
Impedance		50Ω	

*Simulated off a groundplane and does not include cable attenuation

		Specification
GPS/GNSS DATA		
Frequency Range		1562-1612MHz
VSWR		<2.1 ± 4MHz
Gain: LNA		26dB
Out of Band Rejection		> 35dB
Rejection at 787MHz		> 50dB
Typical Noise Figure		-2.7dB
Operating Voltage		3-5V DC
Typical Current		15mA
MECHANICAL DATA		
Dimensions	Height	80mm (3.1")
	Diameter	180mm (7.1")
Operating Temp		-40°/ +80°C (-40° / +176°F)
Colour		Black/White
Ingress Protection		IP69K
MOUNTING DATA		
Mounting Type		Bolt Mount
Mounting Hole		19mm (3/4")
CABLE DATA		
Cellular Cables	Type	C32
	Length	5m (16')
	Termination	FAKRA D (Purple)
GPS Cable	Type	CS29
	Length	5m (16')
	Termination	FAKRA C (Blue)
Wi-Fi Cables	Type	C32
	Length	5m (16')
	Termination	FAKRA I (Beige)

81mm [3.2in] ON INSTALLATION — 79mm [3.1in] — HOUSING: LEXAN EXL9330 PC. — SILICONE RUBBER SEALING SKIRT — SHAKEPROOF WASHER — STAINLESS STEEL SLOTTED NUT

Ø180mm [7.1in] — 184mm [7.2in] ON INSTALLATION — CONDUCTIVE PAD (x4)

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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