

Low Profile IOT Antenna

PANORAMA ANTENNAS

L[G]-7-38[-24-58]

Low Profile IOT Antenna



Low Profile Design

3G/4G/5G, WiFi & GPS/GNSS Functionality

Ideal for M2M and IOT installations

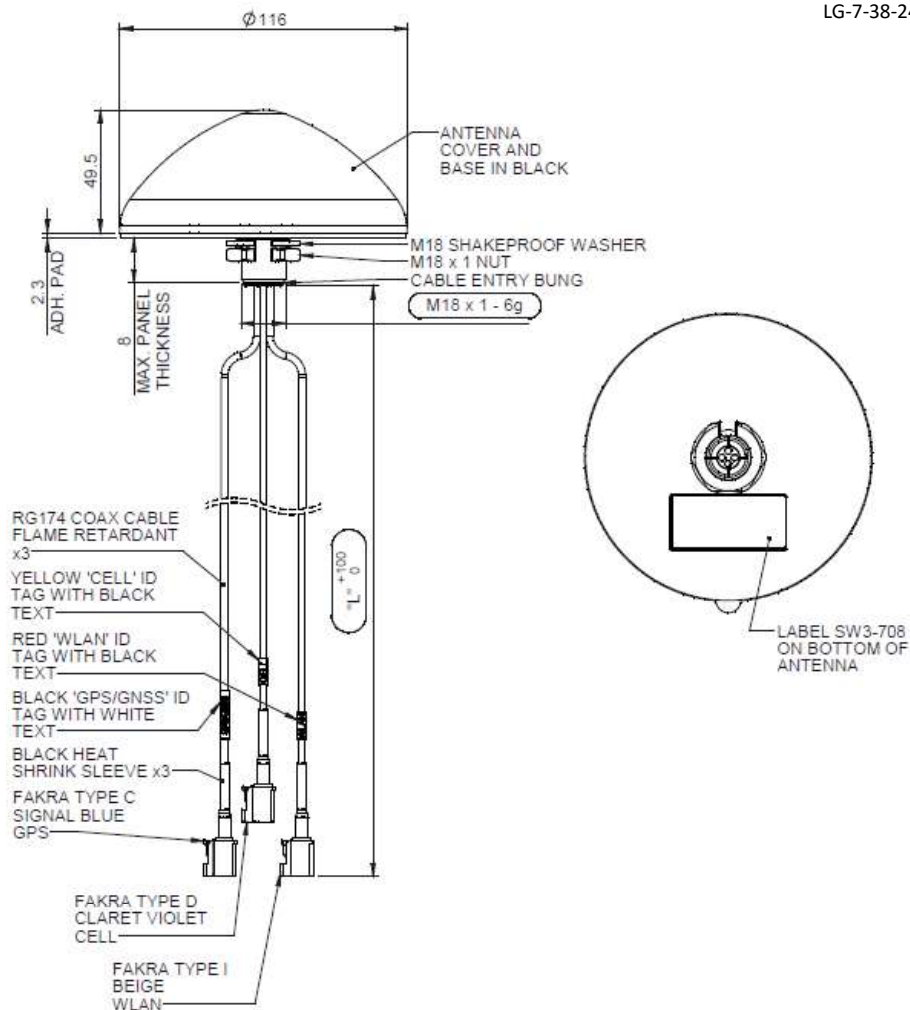
The Panorama L[G]-7-38[-24-58] range is designed to decrease the lifetime cost of M2M and IOT applications by offering a robust low profile antenna for challenging environments.

The antenna covers 698-960/1710-3800MHz supporting 3G, 4G and 3.5GHz 5G, optional 2.4/5.0GHz WiFi and optional GPS/GNSS with a 26dB LNA. The efficient element design ensures a high first time connection rate and an ongoing, robust communications link even in many low coverage areas.

The antenna can be installed on conductive or non-conductive panels via the 19mm (3/4") mounting bush and is fitted with Flame Retardant RG174 cables compliant with UN ECE R118 and either FAKRA or SMA connectors.

Technical Drawing

LG-7-38-24-58-3FK Shown



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L[G]-7-38[-24-58]

Product Data

Part No.		LG-7-38-24-58-3SP	LG-7-38-24-58-3FK	LG-7-38-24-58-1FK	LG-7-38-24-58-1SP
Electrical Data					
Frequency Range (MHz)	Element 1	698-960/1710-3800			
	Element 2	2400-2485/4900-6000			
	Element 3	1562-1612			
Peak Gain†	Element 1: 698-960MHz	1dBi			
	Element 1: 1710-3800MHz	6dBi			
	Element 2: 2.4GHz	7dBi			
	Element 2: 5.0GHz	7dBi			
Typical VSWR	<2.5:1				
Polarisation	Vertical				
Pattern	Omni-directional				
Impedance	50Ω				
Max input power (W)	20				
GPS/GNSS Data					
Frequency Range (MHz)	1562-1612Mhz				
LNA Gain (dB)	26dB				
Typical Current (mA)	15				
Typical Voltage	3-5 VDC				
Mechanical Data					
Dimensions (mm)	Height	49.5 (1.94")			
	Diameter	116 (4.56")			
Operating Temp (°C)	-40° / +85°C (-40° / 185°F)				
Material	Lexan EXL 9330 (UL94-V0)				
Colour	Black				
Mounting Data					
Fixing	Panel mount 19mm (3/4")				
Cable Data					
Cable 1: Cellular	Cable Type	RG174 (meets UN ECE 118)			
	Diameter (mm)	2.8 (0.11")			
	Length (m)	3 (10')	1 (3' 3")		
	Termination	SMA(m)	FAKRA D (Burgundy) Jack	FAKRA D (Burgundy) Jack	SMA(m)
Cable 2: WiFi	Cable Type	RG174 (meets UN ECE 118)			
	Diameter (mm)	2.8 (0.11")			
	Length (m)	3 (10')	1 (3' 3")		
	Termination	SMA Rev Pol	FAKRA I (Beige) Jack	FAKRA I (Beige) Jack	SMA Rev Pol
Cable 3: GPS/GNSS	Cable Type	RG174 (meets UN ECE 118)			
	Diameter (mm)	2.8 (0.11")			
	Length (m)	3 (10')	1 (3' 3")		
	Termination	SMA(m)	FAKRA C (Blue) Jack	FAKRA C (Blue) Jack	SMA(m)

†Peak gain shown simulated in CST microwave studio on a 1mx1m (3'x3') ground plane excluding cable loss.

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Part No.		LG-7-38-3SP	LG-7-38-3FK	LG-7-38-1FK	LG-7-38-1SP
Electrical Data					
Frequency Range (MHz)	Element 1	698-960/1710-3800			
	Element 3	1562-1612			
Peak Gain†	Element 1: 698-960MHz	1dBi			
	Element 1: 1710-3800MHz	6dBi			
Typical VSWR	<2.5:1				
Polarisation	Vertical				
Pattern	Omni-directional				
Impedance	50Ω				
Max input power (W)	20				
GPS/GNSS Data					
Frequency Range (MHz)	1562-1612Mhz				
LNA Gain (dB)	26dB				
Typical Current (mA)	15				
Typical Voltage	3-5 VDC				
Mechanical Data					
Dimensions (mm)	Height	49.5 (1.94")			
	Diameter	116 (4.56")			
Operating Temp (°C)	-40° / +85°C (-40° / 185°F)				
Material	Lexan EXL 9330 (UL94-V0)				
Colour	Black				
Mounting Data					
Fixing	Panel mount 19mm (3/4")				
Cable Data					
Cable 1: Cellular	Cable Type	RG174 (meets UN ECE 118)			
	Diameter (mm)	2.8 (0.11")			
	Length (m)	3 (10')		1 (3' 3")	
	Termination	SMA(m)	FAKRA D (Burgundy) Jack	FAKRA D (Burgundy) Jack	SMA(m)
Cable 2: GPS/GNSS	Cable Type	RG174 (meets UN ECE 118)			
	Diameter (mm)	2.8 (0.11")			
	Length (m)	3 (10')		1 (3' 3")	
	Termination	SMA(m)	FAKRA C (Blue) Jack	FAKRA C (Blue) Jack	SMA(m)

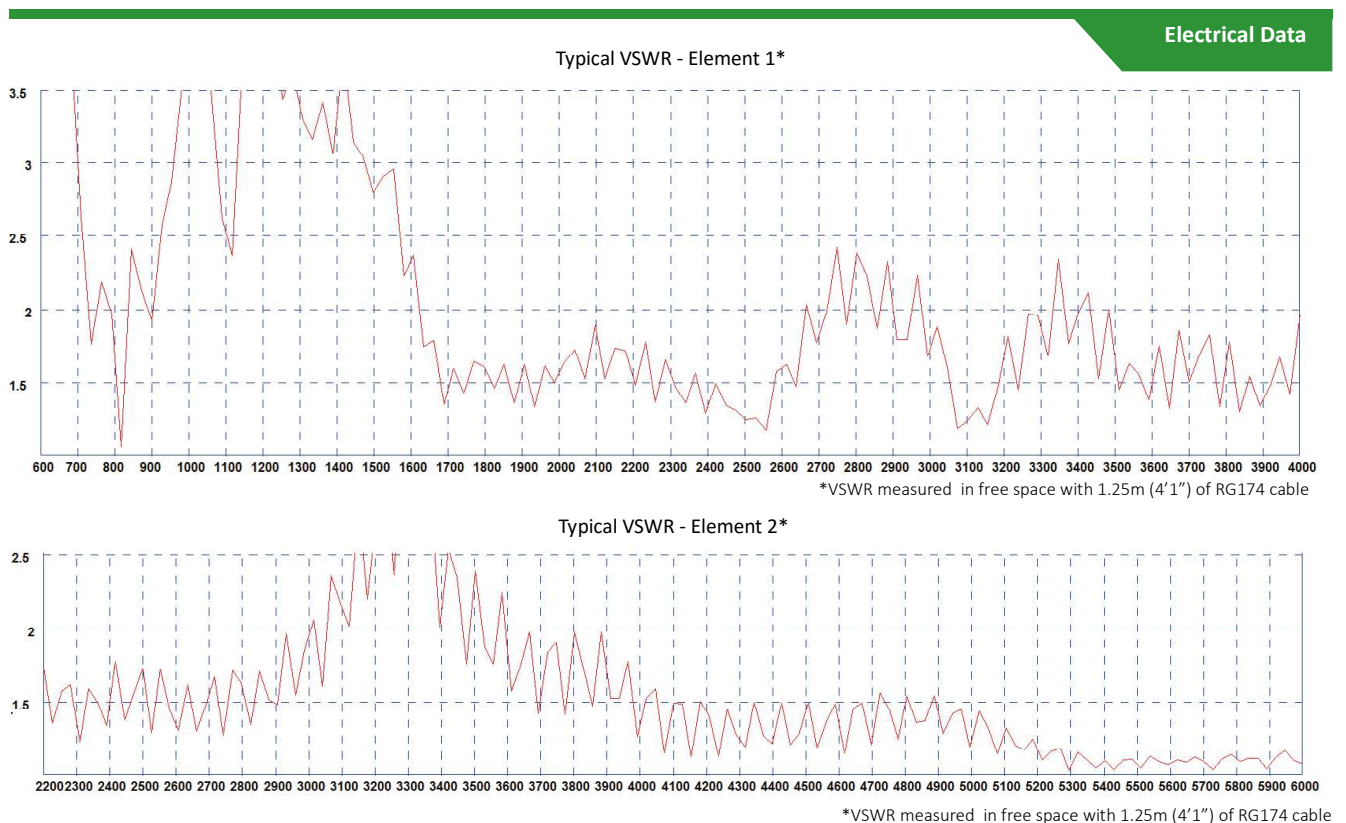
†Peak gain shown simulated in CST microwave studio on a 1mx1m (3'x3') ground plane excluding cable loss.

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L[G]-7-38[24-58]

Part No.	LP-7-38-3SP	LP-7-38-3FK	LP-7-38-1FK	LP-7-38-1SP
Electrical Data				
Frequency Range (MHz)	Element 1: 698-960/1710-3800			
Peak Gain†	Element 1: 698-960MHz		1dBi	
	Element 1: 1710-3800MHz		6dBi	
Typical VSWR	<2.5:1			
Polarisation	Vertical			
Pattern	Omni-directional			
Impedance	50Ω			
Max input power (W)	20			
Mechanical Data				
Dimensions (mm)	Height	49.5 (1.94")		
	Diameter	116 (4.56")		
Operating Temp (°C)	-40° / +85°C (-40° / 185°F)			
Material	Lexan EXL 9330 (UL94-V0)			
Colour	Black			
Mounting Data				
Fixing	Panel mount 19mm (3/4")			
Cable Data				
Cable 1: Cellular	Cable Type	RG174 (meets UN ECE 118)		
	Diameter (mm)	2.8 (0.11")		
	Length (m)	3 (10')	1 (3' 3")	
	Termination	SMA(m)	FAKRA D (Burgundy) Jack	FAKRA D (Burgundy) Jack

†Peak gain shown simulated in CST microwave studio on a 1mx1m (3'x3') ground plane excluding cable loss.

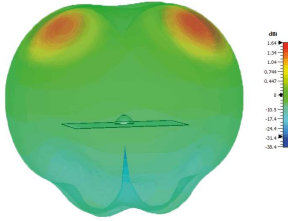


Low Profile IoT Antenna

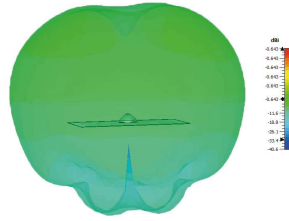
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3D Patterns - Element 1

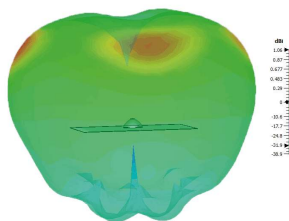
Typical 3D Pattern Side -700MHz



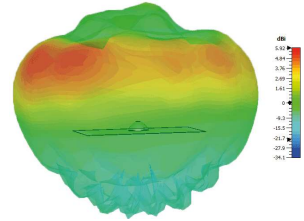
Typical 3D Pattern Side -800MHz



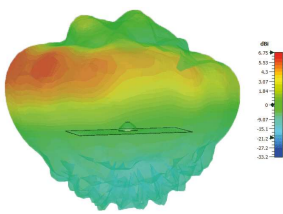
Typical 3D Pattern Side -900MHz



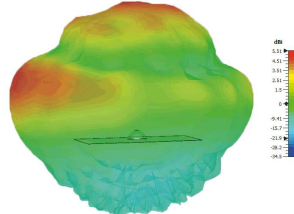
Typical 3D Pattern Side -1800MHz



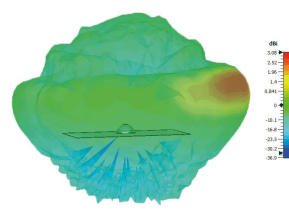
Typical 3D Pattern Side -2100MHz



Typical 3D Pattern Side -2600MHz

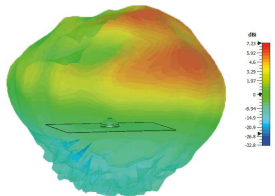


Typical 3D Pattern Side -3600MHz

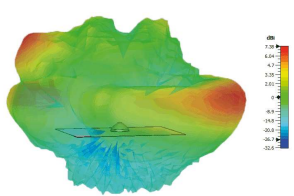


3D Patterns Element 2

Typical 3D Pattern Side -2400MHz



Typical 3D Pattern Side -5400MHz



Typical Pattern Element 3

Typical E-Plane 1575MHz

