

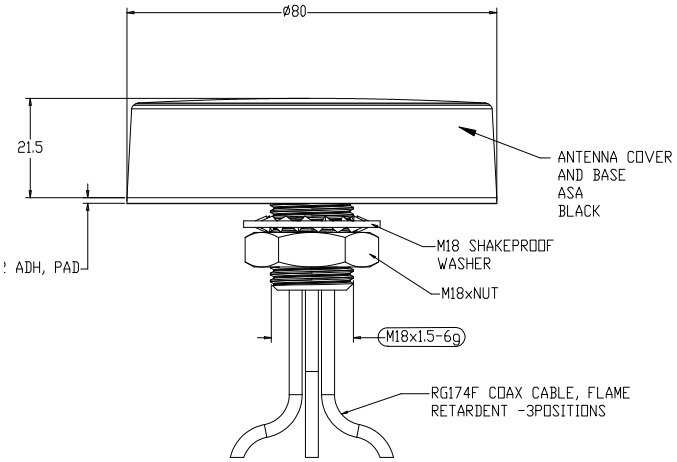
MULTI FUNCTION PUCK ANTENNA

LOW PROFILE ANTENNA

This antenna range is designed to decrease the applied cost of M2M and IoT applications by offering a robust low profile antenna with an extremely compact envelope. Ideal for situations where a robust solution is required. The antenna covers 698-960/1710-3800MHz and optional 2.4/5.9GHz WLAN and optional GPS/GNSS with a 26dB LNA.

At < 22mm height the antenna is extremely discreet and ideal for low clearance deployment locations. The antenna is suitable for non conductive panels.

Technical Drawing



Partnumber	Cell	WLAN	GNSS	Length	Connector
2363696-1	Y	Y	Y	3m	SMA
2363696-2	Y	Y	Y	3m	Fakra
2363696-3	Y	Y	Y	1m	Fakra
2363696-4	Y	Y	Y	1m	SMA
1-2363696-1	Y	Y	N	3m	SMA
1-2363696-2	Y	Y	N	3m	Fakra
1-2363696-3	Y	Y	N	1m	Fakra
1-2363696-4	Y	Y	N	1m	SMA
2-2363696-1	Y	N	N	3m	SMA
2-2363696-2	Y	N	N	3m	Fakra
2-2363696-3	Y	N	N	1m	Fakra
2-2363696-4	Y	N	N	1m	SMA

Electrical Data		**2363696-1**	**2363696-2**	**2363696-3**	**2363696-4**
Frequency Range (MHz)	Element 1	698-960 / 1710-3800			
	Element 2	2400-2485 / 4900-6000			
Operational band		2G/3G/4G/5G, WLAN/Wi-Fi, GPS			
Peak Gain	Element 1: 698-960MHz	0dBi			
	Element 1: 1710-3800MHz	2dBi			
	Element 2: 2.4GHz	2dBi			
	Element 2: 5.0GHz	4dBi			
Typical VSWR		< 2.5:1			
Polarisation		Vertical			
Pattern		Omni-Directional			
Impedance		50Ω			
Max Input Power (W)		20			
GPS/GNSS Data					
Frequency Range (MHz)		1562-1612 MHz			
LNA Gain (dB)		26dB			
Typicall Current (mA)		15			
Typical Voltage		3-5 VDC			
Mechanical Data					
Dimensions (mm)	Height (mm)	22.5 (0.88”)			
	Diameter (mm)	80 (3.14”)			
Operating Temp (°C)		-40 to +85°C (-40 to 185°F)			
Material		ASA			
Colour		Black			
Ingress Protection		IP66 / IK07			
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 plug	FAKRA D Jack	FAKRA D Jack	SMA plug
Cable 2: Wi-Fi	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 Jack	FAKRA I 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 plug	Fakra C jack	Fakra C Jack	SMA plug

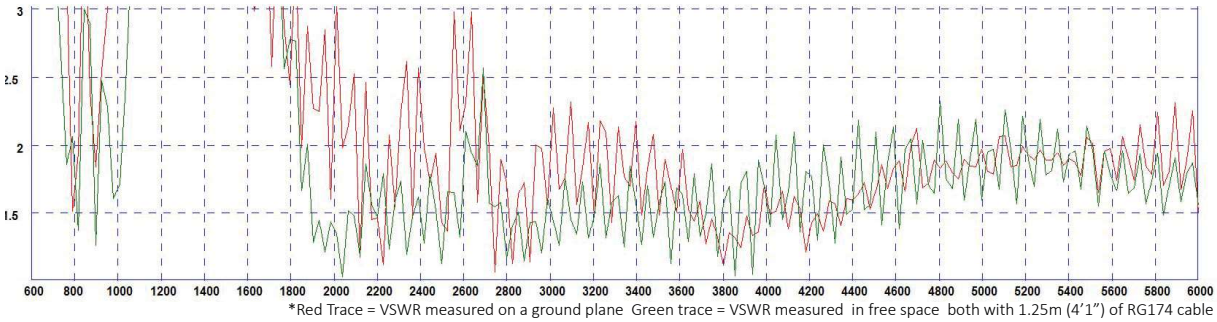
Peak gain modelled in CST Microwave Stufio and does not include cable attenuation

Electrical Data		**1-2363696-1**	**1-2363696-2**	**1-2363696-3**	**1-2363696-4**
Frequency Range (MHz)	Element 1	698-960 / 1710-3800			
	Element 2	2400-2485 / 4900-6000			
Operational band		2G/3G/4G/5G, WLAN/Wi-Fi			
Peak Gain	Element 1: 698-960MHz	0dBi			
	Element 1: 1710-3800MHz	2dBi			
	Element 2: 2.4GHz	2dBi			
	Element 2: 5.0GHz	4dBi			
Typical		< 2.5:1			
Polarisation		Vertical			
Pattern		Omni-Directional			
Impedance		50Ω			
Max Input Power (W)		20			
Mechanical Data					
Dimensions (mm)	Height (mm)	22.5 (0.88”)			
	Diameter (mm)	80 (3.14”)			
Operating Temp (°C)		-40 to +85°C (-40 to 185°F)			
Material		ASA			
Colour		Black			
Ingress protection		IP66/IK07			
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 plug	FAKRA D Jack	FAKRA D Jack	SMA plug
Cable 2: Wi-Fi	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 Jack	FAKRA I Jack	SMA Rev Pol

Peak gain modelled in CST Microwave Stufio and does not include cable attenuation

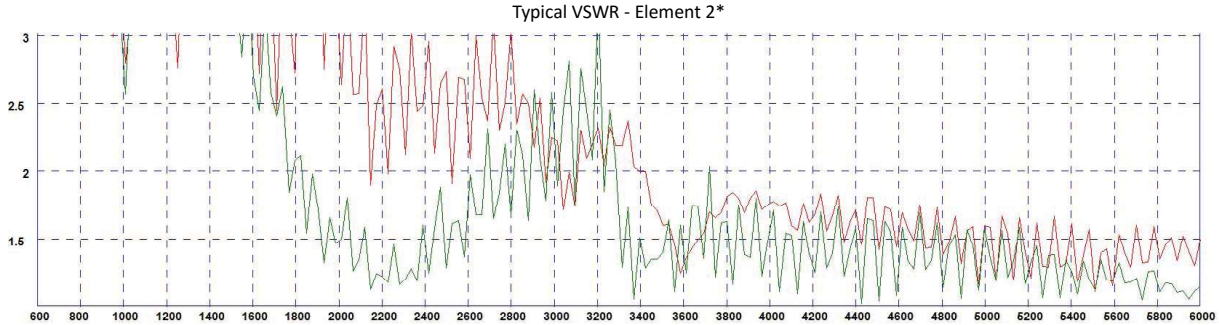
Electrical Data		2-2363696-1	2-2363696-2	2-2363696-3	2-2363696-4
Frequency Range (MHz)		698-960 / 1710-3800			
Operational Band		2G/3G/4G/5G			
Peak Gain	Element 1: 698-960MHz	0dBi			
	Element 1: 1710-3800MHz	2dBi			
Typical		< 2.5:1			
Polarisation		Vertical			
Pattern		Omni-Directional			
Impedance		50Ω			
Max Input Power (W)		20			
Mechanical Data					
Dimensions (mm)	Height (mm)	22.5 (0.88")			
	Diameter (mm)	80 (3.14")			
Operating Temp (°C)		-40 to +85°C (-40 to 185°F)			
Material		ASA			
Colour		Black			
Ingress Protection		IP66/IK07			
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 plug	FAKRA D Jack	FAKRA D Jack	SMA plug

Typical VSWR - Element 1*



*Red Trace = VSWR measured on a ground plane Green trace = VSWR measured in free space both with 1.25m (4'1") of RG174 cable

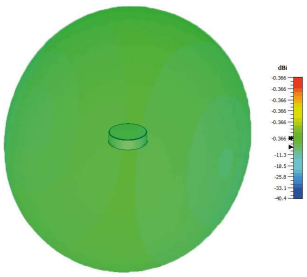
Typical VSWR - Element 2*



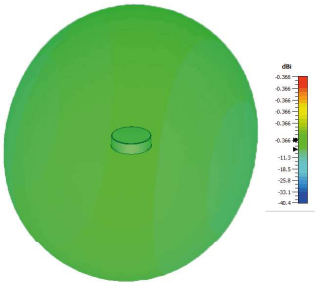
Red Trace = VSWR measured on a ground plane Green trace = VSWR measured in free space both with 1.25m (4'1") of RG174 cable

3D Patterns Cell

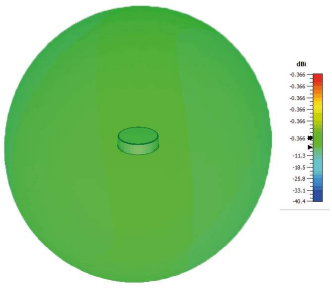
Typical 3D Pattern 700MHz



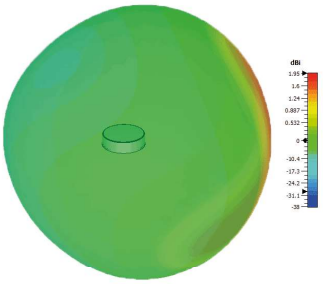
Typical 3D Pattern 800MHz



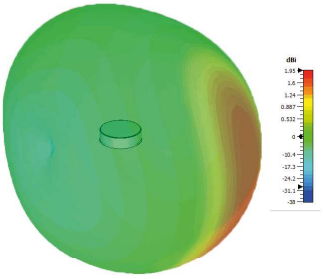
Typical 3D Pattern 900MHz



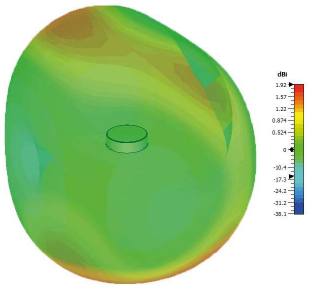
Typical 3D Pattern 1800MHz



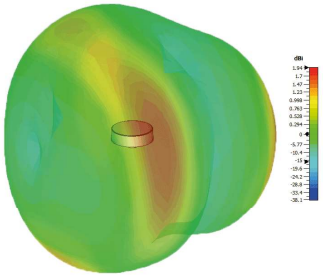
Typical 3D Pattern 2000MHz



Typical 3D Pattern 2600MHz

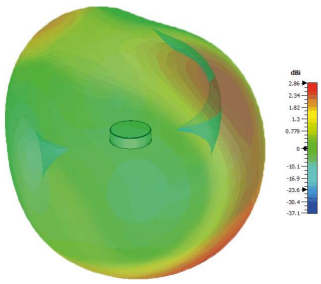


Typical 3D Pattern 3600MHz



3D Patterns Wi-Fi

Typical 3D Pattern 2450MHz



Typical 3D Pattern 5400MHz

