PTA-PRO1S-1XLTE

PRELIMINARY

Pro Series

Single Element LTE External IP67 Antenna

Product Description

Parsec's PTA-PRO1S-1XLTE-XXX is a small footprint one-in-one cellular external waterproof antenna. This compact rugged omni-directional antenna works on all the common worldwide LTE bands with high efficiency. The PTA-PRO1S-1XLTE-XXX is optimized for small footprint to fit the top of common electrical equipment boxes. The strong tamper resistant housing with no exposed connections or mounting hardware is ideally suited for use with self-service kiosks in public areas. The antenna requires a single 1 inch mounting hole.

Detailed product information and options are available under NDA. Patent pending.

Features

- **LTE frequency range: 698 – 960 MHz**
  1710 – 2700 MHz
- **Omni-directional**
- **Small footprint**
- **High efficiency**

Applications

- **External M2M, IoT Applications**
- **SCADA, Industrial monitoring**
- **Oil and natural gas fields**
- **Self-service kiosks**

Electrical Specifications

ID	Port	Parameters	Units	Typ.
Radiated Efficiency	LTE-1	698 – 960 MHz	%	70
	LTE-1	1710 – 2700 MHz		70
Peak Gain	LTE-1	698 – 960 MHz	dBi	4
	LTE-1	1710 – 2700 MHz		7
Return Loss (50 Ω)	LTE-1	698 – 894 MHz	dB	8
	LTE-1	894 – 960 MHz		5
	LTE-1	1710 – 2500 MHz		9
	LTE-1	2500 – 2700 MHz		7
Polarization	LTE			Linear
Max Input Power	LTE		Watts	5
RF Connector	LTE			SMA(M)
RF Cable Type	LTE			LMR200

Notes:

1. **Electrical specifications based on antenna with a 24 in x 24 in external ground plane.**

LTE Bands Covered for US Carriers

AT&T	2, 4, 5, 14, 17, 29, 30, 66
Verizon	2, 4, 5, 13, 66
T-Mobile	2, 4, 12, 66
Sprint	2, 25, 26, 41

Mechanical

Dimensions	3.75 inch diameter x 2.64 inch height
Mounting Hole	Single 1 inch
RF Cable Length	Choice of 1, 2, or 6 foot cable

Environmental

Operating Temperature	-40°C to 85°C
Ingress Protection	IP67 waterproof

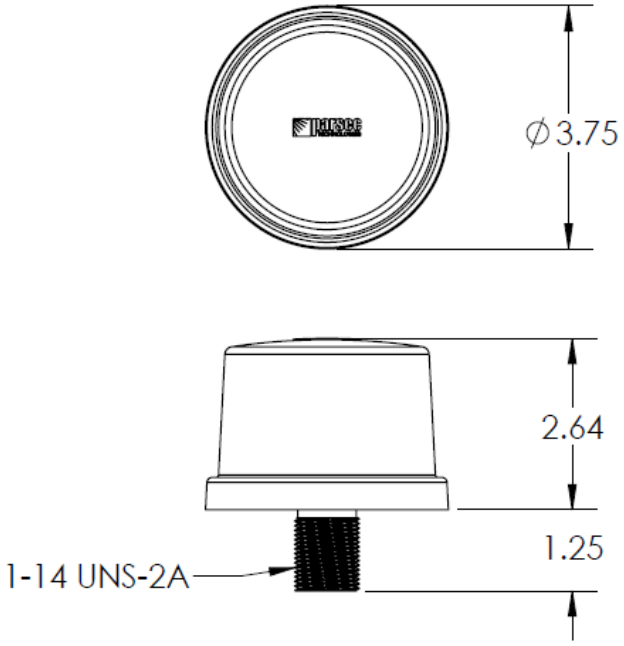

Figure 1. Product Dimensions

Figure 2. Product Picture

Typical Performance

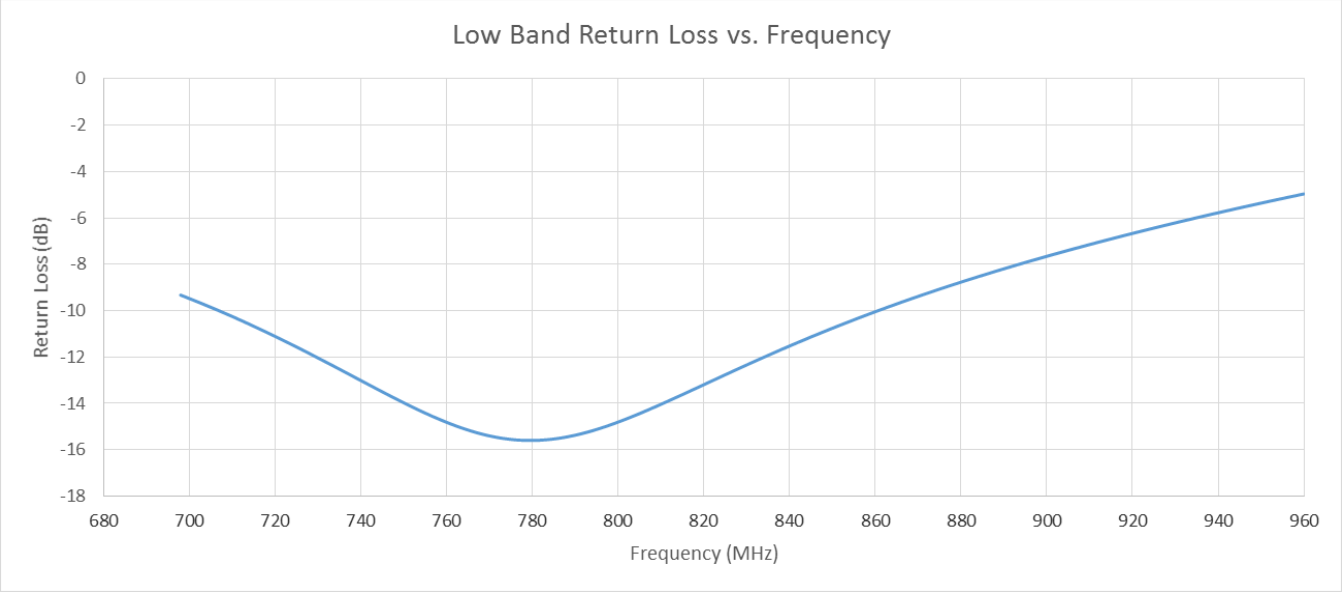

Figure 3. LTE Antenna Low Band Return Loss

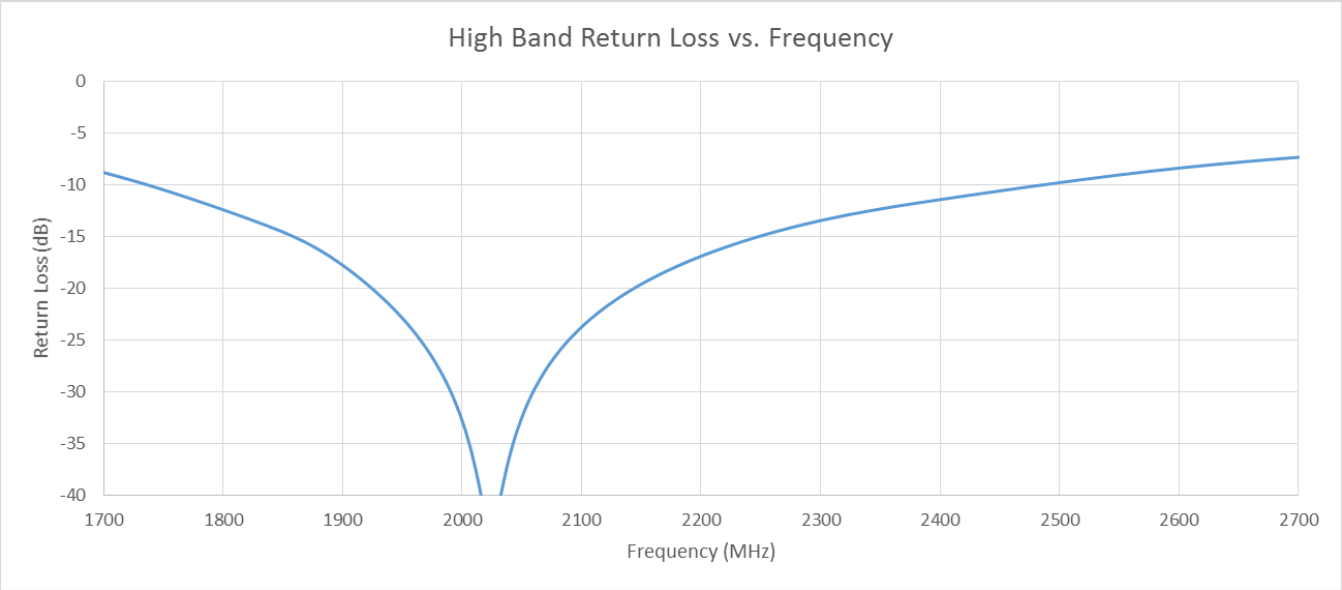

Figure 4. LTE Antenna High Band Return Loss

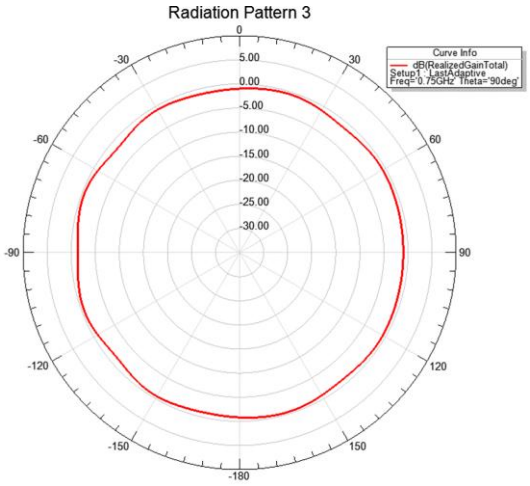

Figure 5. LTE, Azimuth, 750 MHz, Phi/Deg, Theta = 90

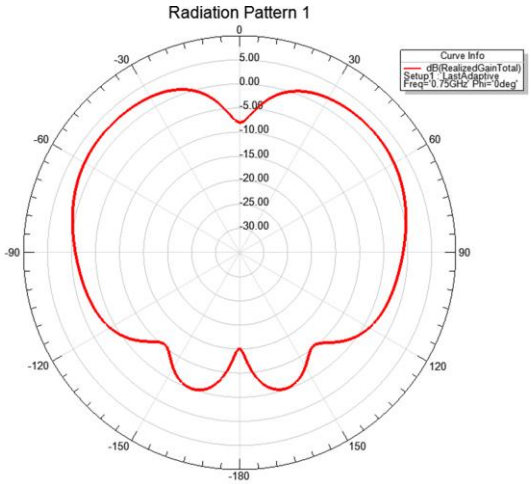

Figure 6. LTE, Elevation, 750 MHz, Theta/Deg, Phi = 0

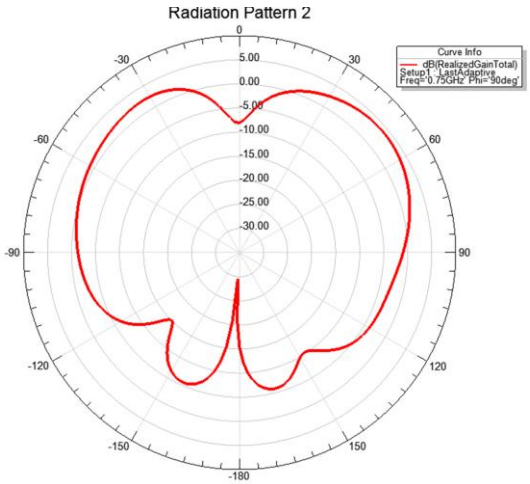

Figure 7. LTE, Elevation, 750 MHz, Theta/Deg, Phi = 90

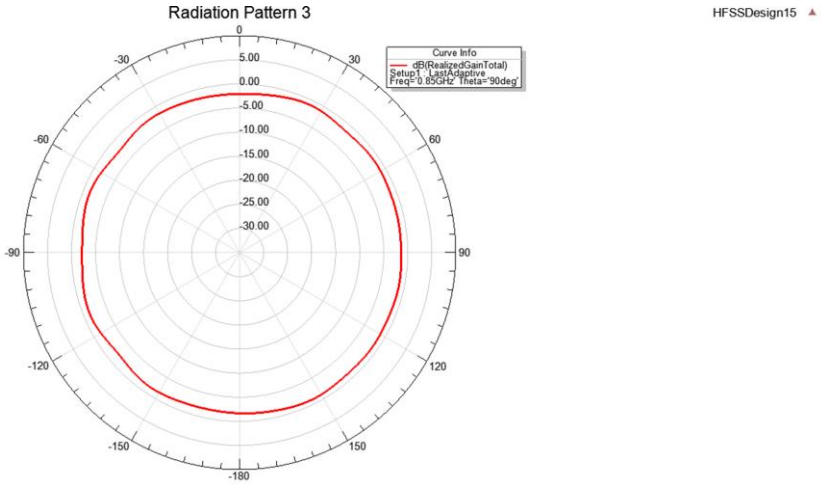

Figure 8. LTE, Azimuth, 850 MHz, Phi/Deg, Theta = 90

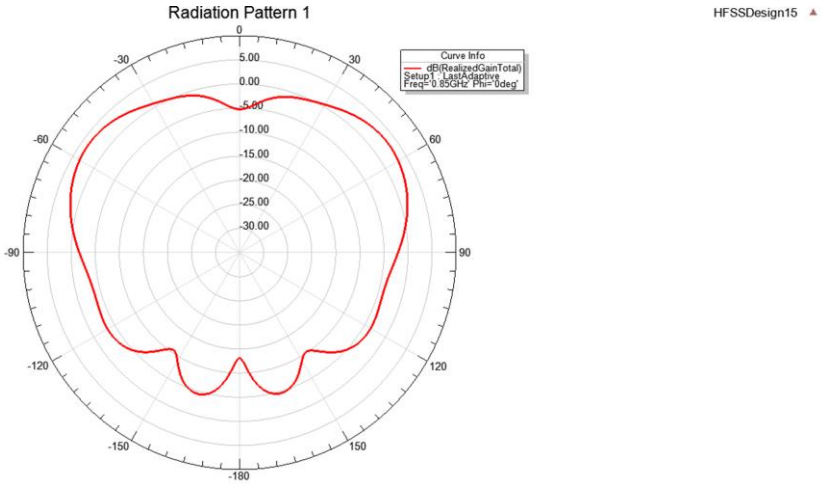

Figure 9. LTE, Elevation, 850 MHz, Theta/Deg, Phi = 0

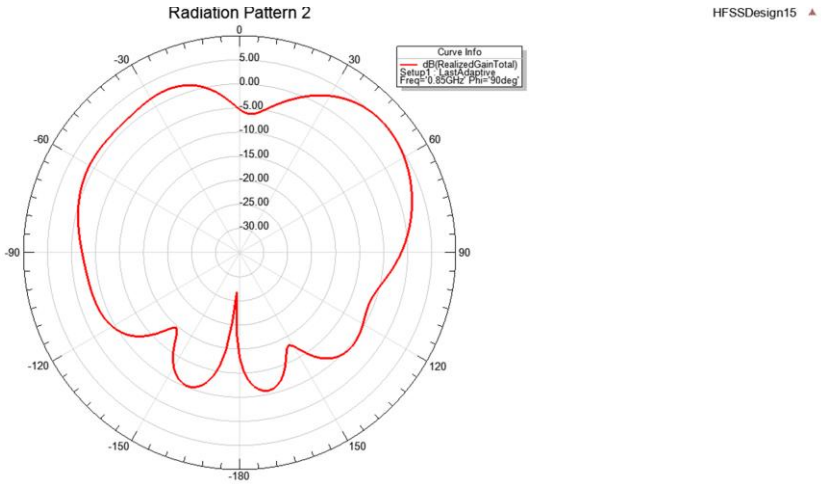

Figure 10. LTE, Elevation, 850 MHz, Theta/Deg, Phi = 90

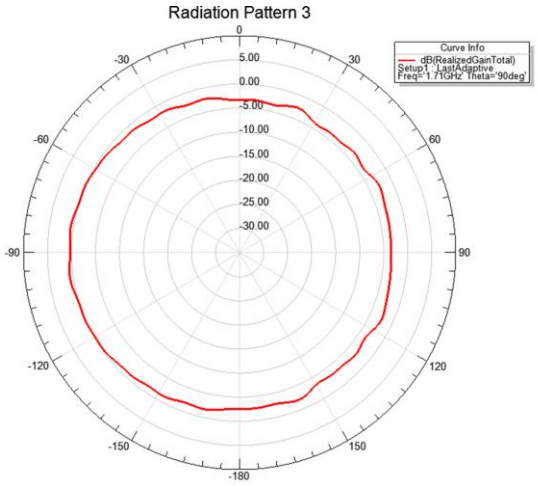

Figure 11. LTE, Azimuth, 1710 MHz, Phi/Deg, Theta = 90

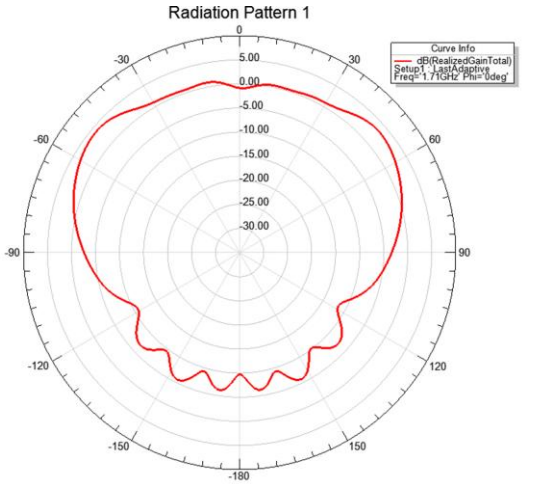

Figure 12. LTE, Elevation, 1710 MHz, Theta/Deg, Phi = 0

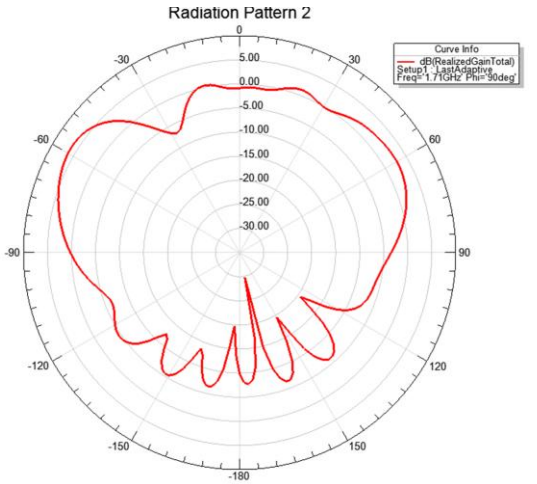

Figure 13. LTE, Elevation, 1710 MHz, Theta/Deg, Phi = 90

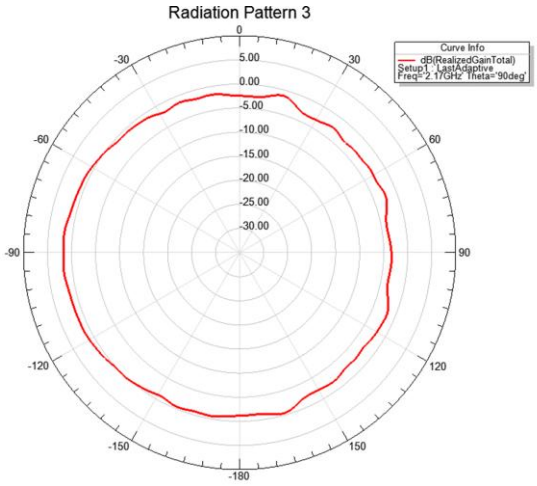

Figure 14. LTE, Azimuth, 2170 MHz, Phi/Deg, Theta = 90

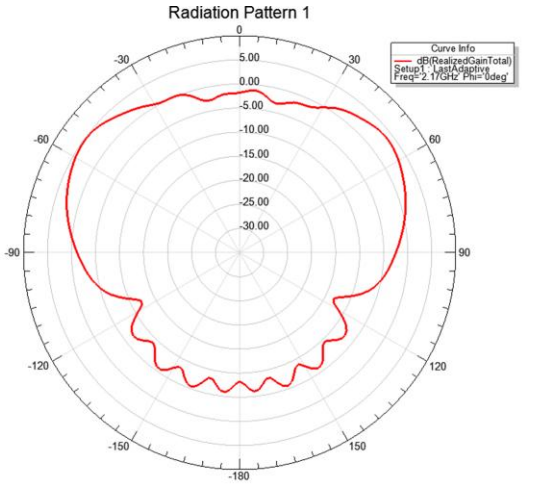

Figure 15. LTE, Elevation, 2170 MHz, Theta/Deg, Phi = 0

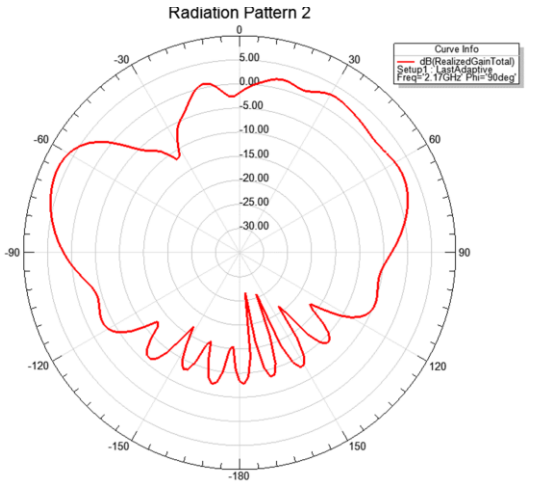

Figure 16. LTE, Elevation, 2170 MHz, Theta/Deg, Phi = 90

Contact Information

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Ordering Information

Part Number	PTA-PRO1S-1XLTE-001	1 foot long cables
	PTA-PRO1S-1XLTE-002	2 foot long cables
	PTA-PRO1S-1XLTE-006	6 foot long cables

Add –B for Black Radome, -W for White Radome

Custom cable lengths available

Packing for Shipment Protective box, qty. 1 per box.