



# Product Specification For UGM Series GSM850/PCS1900 Band Under-Glass-Mount Antenna And Universal Antenna Radome

Customer Approval Signature: \_\_\_\_\_

Date Approved: \_\_\_\_\_

Customer Name:

Engineering Approval: \_\_\_\_ NJS \_\_\_\_\_

Date Approved: \_\_06/30/05\_\_

**Explanation of Part Number**

WPIANT UGM F R1 200 03 X  
(1) (2) (3) (4) (5) (6) (7)

- 1 – WPI Antenna
- 2- Product Series – Under Glass Mount (UGM)
- 3- Frequency – F = 850/1900MHz dual band
- 4- Cable type – R1 = RG178
- 5- Cable length (mm) – 200mm
- 6 - Connector style – 03 = RA SMA Plug (Std)
- 7 - Special requirements



**Fig 1.0 Appearance of Universal Antenna Radome (Patent Pending)**

**Electrical Properties**

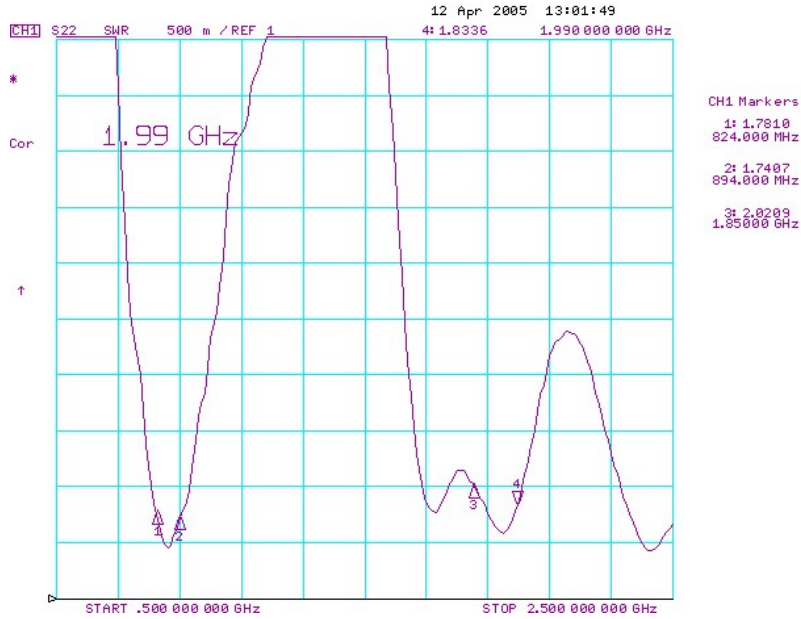
Item	Specification	
<b>Frequency Range</b>	824~894/1850~1990 GHz	
<b>Impedance</b>	50Ω (Typ.)	
<b>VSWR (Max)</b>	<2.5:1 (Typ – installed in Meter)	
<b>Gain (Peak) (H-Plane A3 Meter)</b>	GSM850	PCS1900
	-2.0dBi Typ	+0dBi Typ
<b>Gain (Peak) (H-Plane S4 Meter)</b>	GSM850	PCS1900
	-1.0dBi Typ	+1.0dBi Typ
<b>Polarization</b>	Linear	
<b>Radiation Pattern</b>	Near omni-directional in the horizontal plane	
<b>Power handling (max)</b>	2Watts (+33dBm)	

**Application**

This series of printed flexible circuit antenna is ideal for “under the glass” applications in industrial wireless or Automated Meter Reader (AMR) applications and its’ universal housing (radome) has been specially designed to be a generic fit for most electricity utility meters.



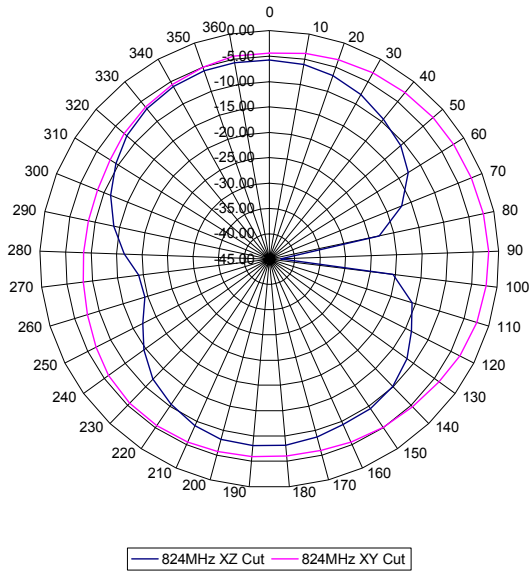
VSWR (typical data -850/1900MHz version)



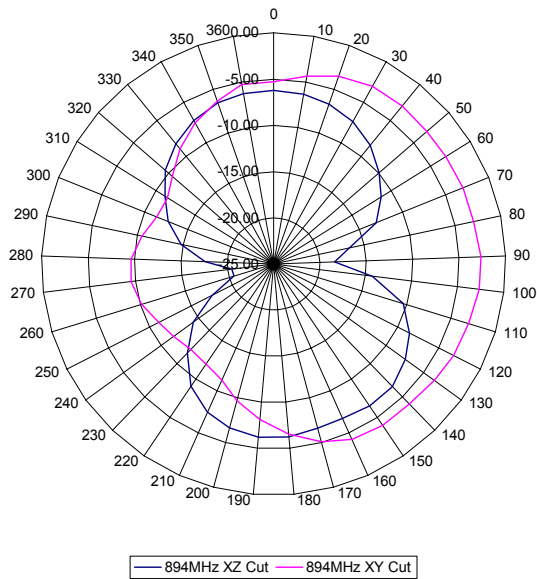


Typical Gain Patterns (Installed in Elster Model A3T Meter @3pm position)

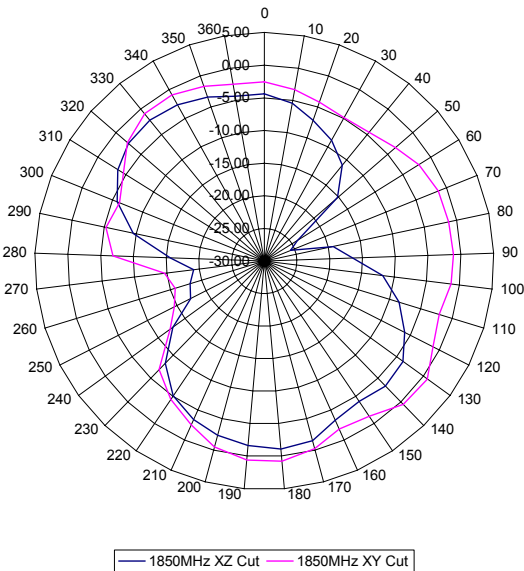
824MHz Gain in (dBi)



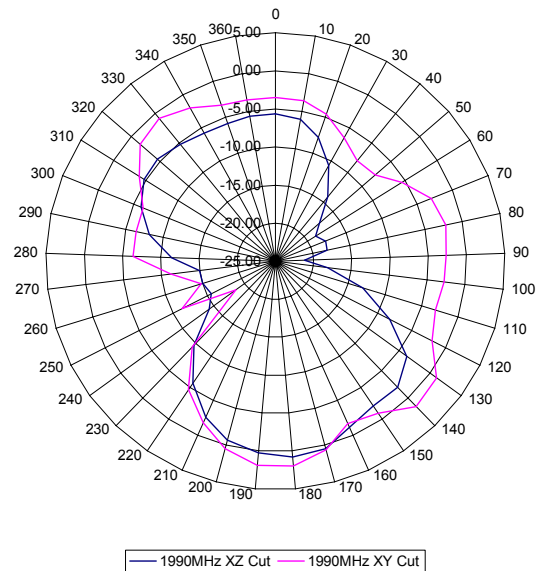
894MHz Gain in (dBi)



1850MHz Gain in (dBi)



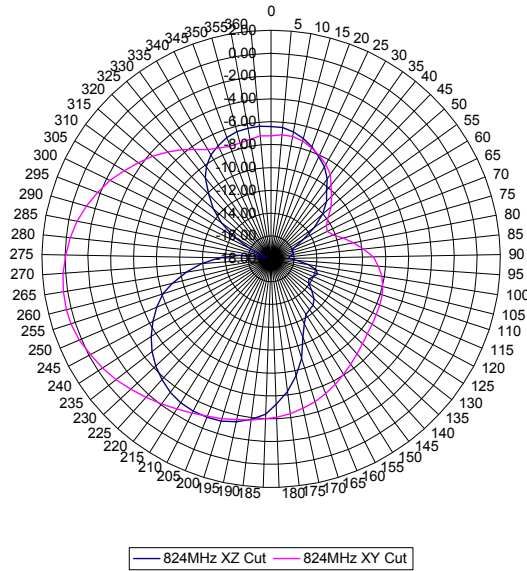
1990MHz Gain in (dBi)



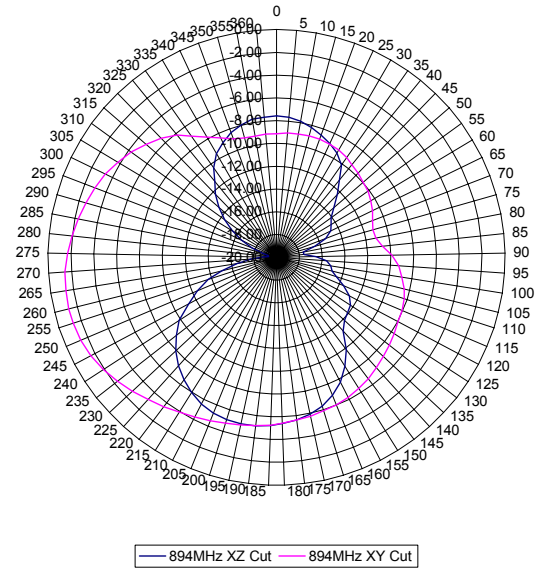


Typical Gain Patterns (Installed in Landis and Gyr Model S4 Meter @9pm position)

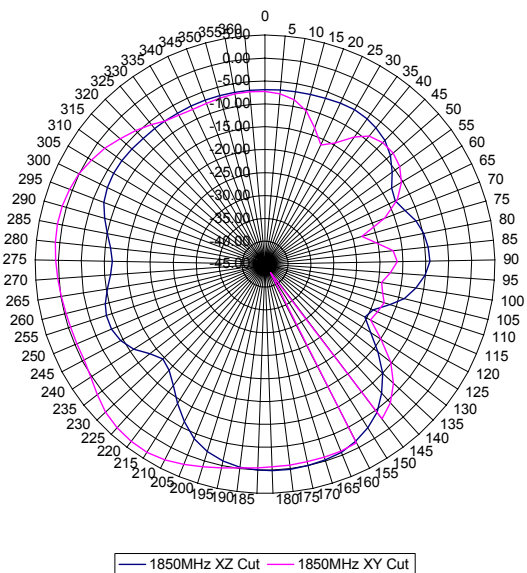
824MHz Gain in (dBi)



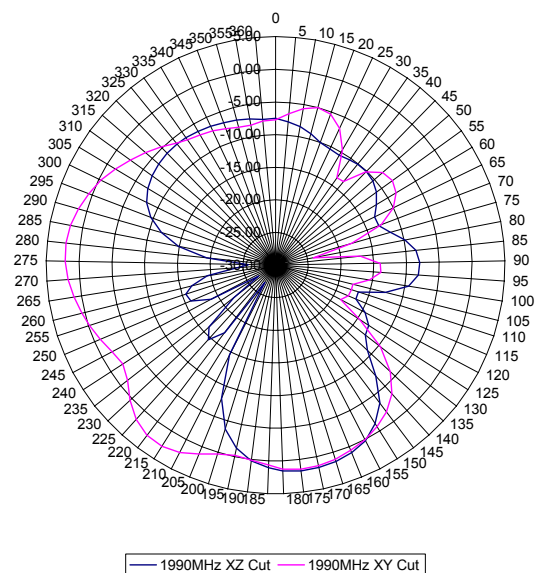
894MHz Gain in (dBi)



1850MHz Gain in (dBi)



1990MHz





**Mechanical Properties**

Item	Property
RF Coaxial-Cable	RG178 - standard Length 200mm –standard Customer may specify other lengths
Universal Antenna Radome	Semi flexible plastic
Antenna Substrate	Type – FR4 Finish – Black Conformal Coating
RF Coaxial Connector	3.5mm RA SMA Male plug - standard Customer may specify other connectors (RA MMCX etc..)
Operation Temperature :	-30 degrees centigrade to +70 degrees centigrade
Environmental	Meets Standards for UL 94V-0 RoHS Compliant

**Mechanical Dimensions**

