

# WSA-00178 PCS Fullband TTLNA

## ◆ Features:

- Full Duplex Configuration
- Pseudo-Elliptic Filter Configurations for Low Loss and High Rejection
- Ultra-Low Noise Figure - < 1.7 dB Typical
- Automatic Bypass Under Soft/Hard Fail Conditions
- +10V to +15V Operating Voltage via Bias Tee on BTS Cable Center Contact
- Integrated Assembly-to-BTS Lightning Protection

## ◆ Specifications:

### Receive Path Specifications:

Receive Passband:	1850 to 1910 MHz
LNA Construction:	Single Stage, Two-Branch Quadrature, Balanced
Gain:	12 dB minimum 16 dB maximum
Noise Figure:	< 1.7 dB typical, 2.1 dB maximum
Passband Return Loss:	15 dB minimum
Input IP3:	+15 dBm minimum, +17 dBm typical
Maximum Input Power:	+17 dBm non-destructive
Receive Preselect Attenuation: (relative to passband)	
DC to 1740 MHz	-70 dBc minimum
1710 to 1795 MHz	-45 dBc minimum
1795 to 1822.5 MHz	-23 dBc minimum
1822.5 to 1832.5 MHz @ 1920 MHz	-10 dBc minimum
1930 to 1990 MHz	-70 dBc minimum
Alarm Circuit Operation: (into bypass mode)	
Alarm Mode 1	Bias Current Window Monitoring
Alarm Mode 2	Bias Tee Input Voltage < +10 VDC or > +15VDC
Insertion Loss in Bypass Mode:	2.5 dB maximum

### Transmit Specifications:

Transmit Passband:	1930 to 1990 MHz
Passband Insertion Loss:	0.5 dB maximum
Passband Return Loss:	18 dB minimum

## ◆ Applications:

- Outdoor Installation on Tower to Enhancement Uplink in Cellular Systems



Transmit Filter Attenuation:	
Receive Passband	-40 dBc minimum
Passband Power Handling:	
Average	100 watts
Peak Instantaneous	1500 watts

### Assembly Specifications:

TTLNA Configuration:	Full Duplex
Characteristic Impedance:	50 ohms
Power Supply:	
Voltage	+10VDC to +15 VDC Via Bias Tee-Center BTS Connector
Current	200 mA maximum
Proposed Dimensions: (including mounting feet & connectors)	11.6" x 8.7" x 3.5" (295mm x 221mm x 89mm)
Connectors:	7/16-F
Surge Suppression:	
Antenna Port	14 AWG DC Ground Per IEC 1000-4-5 8/20uS @ 20 kA 10/350uS @ 5 kA
BTS Port	Aluminum, Silver Plated 10 lbs nominal Per IP65 Gray Polyurethane Paint Per RAL7035 10 lbs @ 100 mph
Housing:	
Weight:	
Environmental:	
Exterior Finish:	
Wind Loading:	
Temperature Range:	
Operational	-40°C to +60°C
Storage	-40°C to +85°C
Calculated MTBF:	> 200,000 hours

Filtering Solutions for Your Global Market

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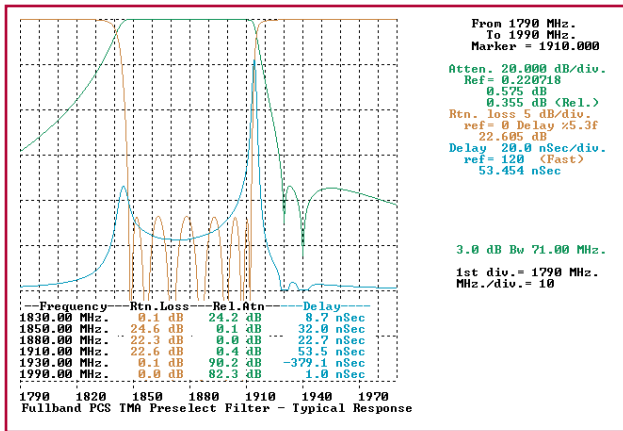
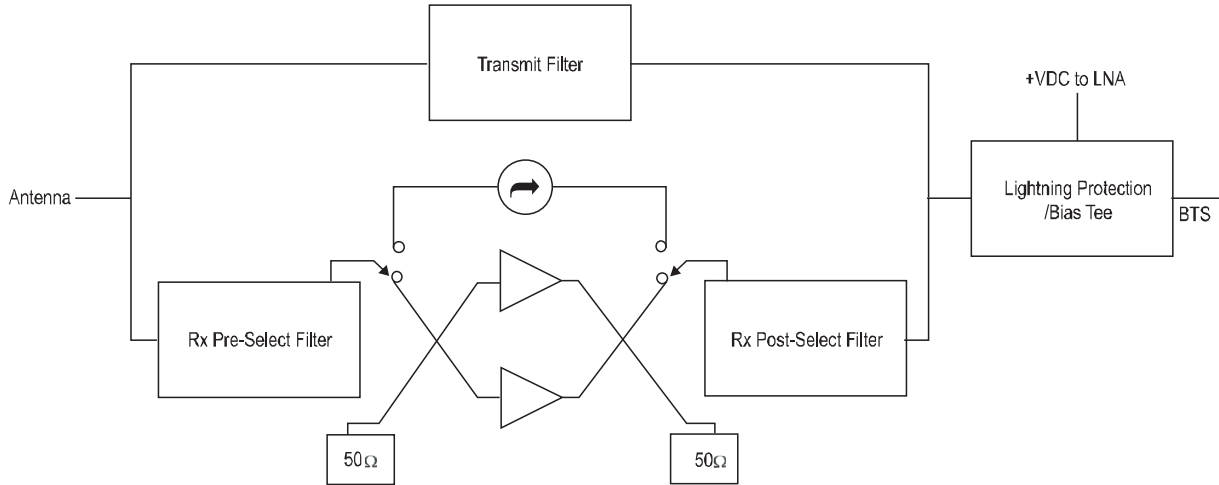
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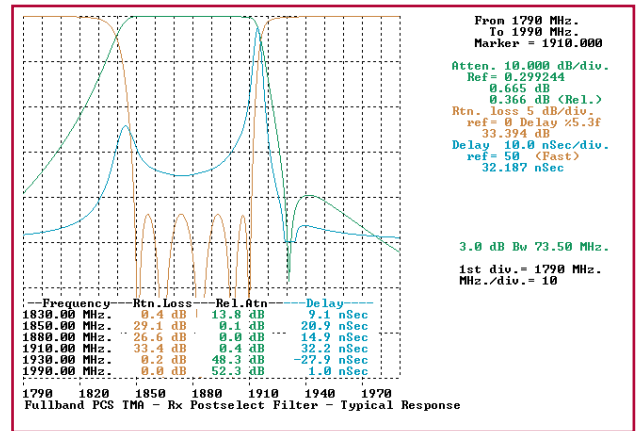
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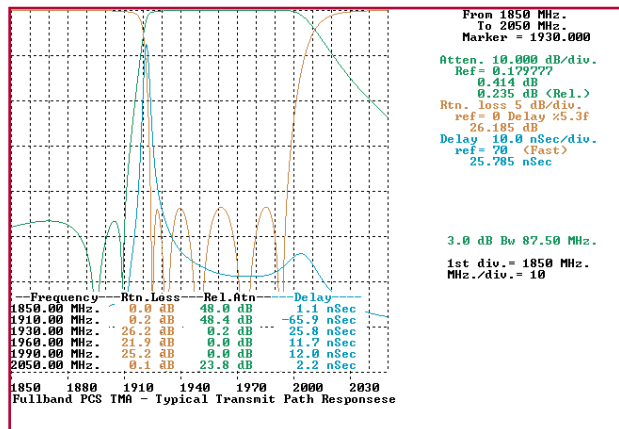
## ◆ Outline Drawing:



Rx Preselect Filter



Rx Post Select Filter



Transmit Path Response

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