Internal Quad Band PWB Antenna

(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

Features

- Very Low profile
- Compact size W x L x H (25 x 87 x 0.2 mm)
- Low weight (1.35 g)
- Cable feed with I-PEX connector (U.FL compatible)
- Lead free materials
- Lead free soldering compatible
- RoHS Compliant Product

Applications

- Frequency range (GSM 850 / GSM 900 / DCS / PCS)

Electrical specifications @ +25 °C

Note: Electrical characteristics depend on device mechanics

GSM 850: 824 – 894 MHz

Typical free space performance, measured in test unit mechanics

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [° C]
824 – 894	1.33	50 / -3.0	-7	50	-45 to +85

Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

Pulse
A TECHNITROL COMPANY

Internal Quad Band PWB Antenna

(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

GSM 900 : 880 – 960 MHz

Typical free space performance, measured in test unit mechanics

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [° C]
880 – 960	1.50	55 / -2.6	-6.5	50	-45 to +85

DCS : 1710 – 1880 MHz

Typical free space performance, measured in test unit mechanics

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [° C]
1710 – 1880	3.75	50 / -3.0	-8	50	-45 to +85

PCS : 1850 – 1990 MHz

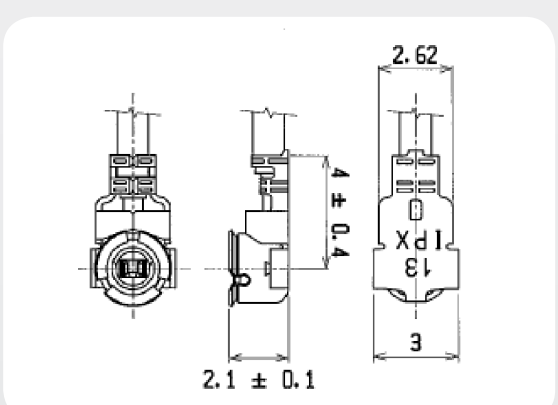
Typical free space performance, measured in test unit mechanics

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [° C]
1850 – 1990	3.45	50 / -3.0	-8	50	-45 to +85

Cable and Connector Configuration

Cable length: 56 mm

Cable outer diamenter: 1.13 mm



Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

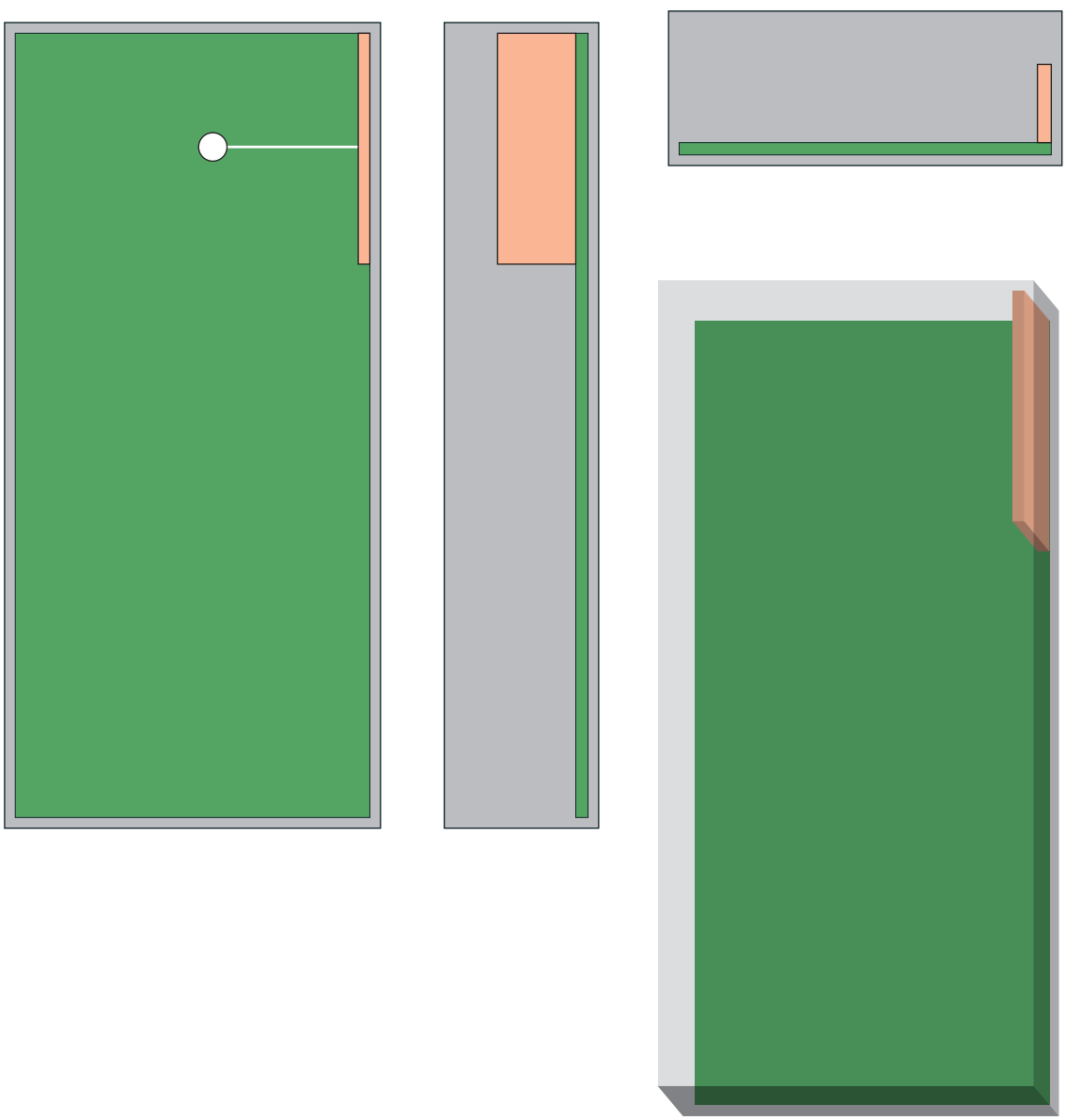
Pulse
A TECHNITROL COMPANY

Internal Quad Band PWB Antenna

(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

Test Unit and Antenna Location

Test unit size 150 x 100 x 40mm



Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

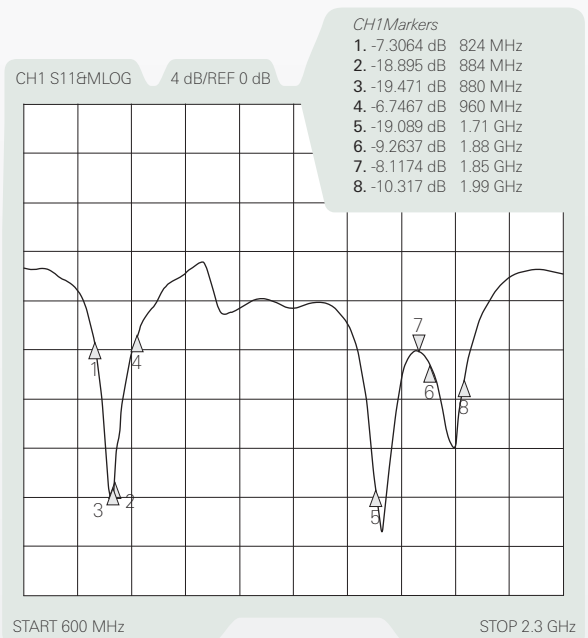
Pulse
A TECHNITROL COMPANY

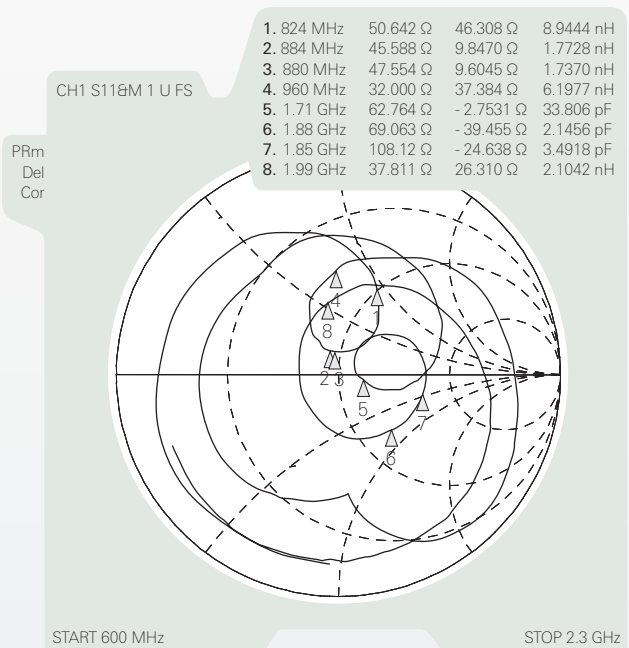
Internal Quad Band PWB Antenna

(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

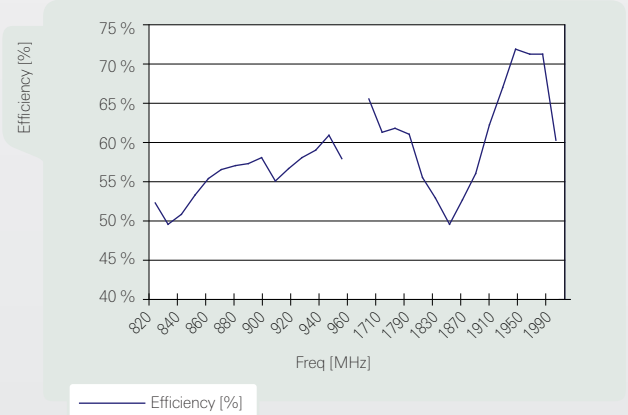
Typical Electrical Characteristics 600 – 2300 MHz (T=25 °C)

Measured on the test board, Typical Return Loss S11/ impedance





3501 Internal Quad Band Antenna Efficiency



3501 Internal Quad Band Antenna Max Gain

Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

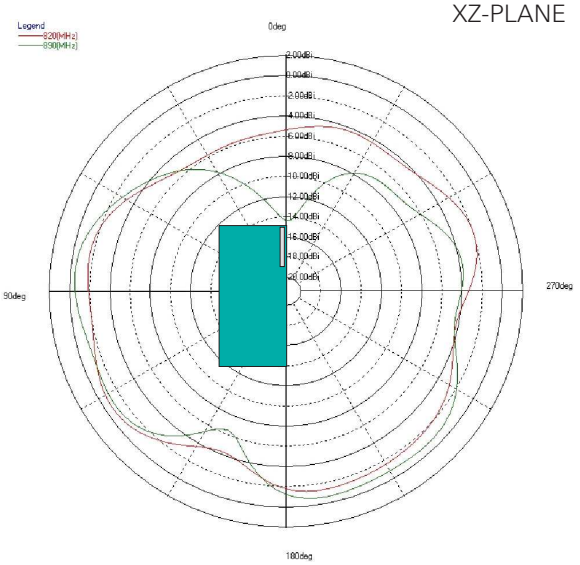
Pulse
A TECHNITROL COMPANY

Internal Quad Band PWB Antenna

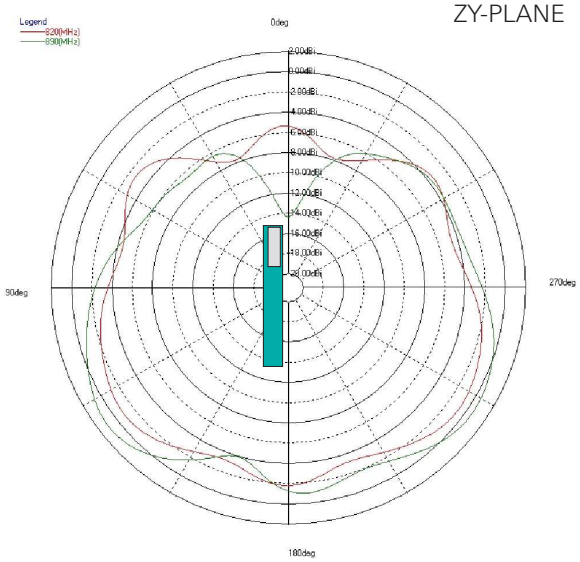
(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

824 – 894 MHz Typical Free Space Radiation Patterns

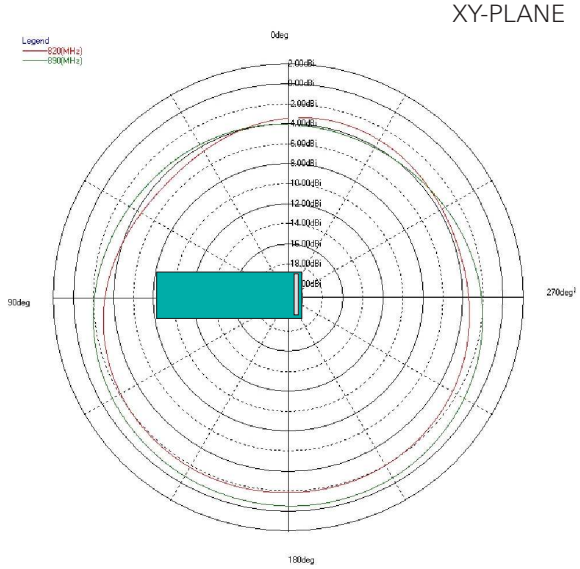
XZ-PLANE

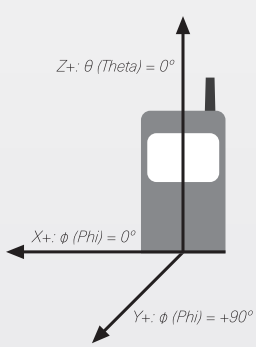


ZY-PLANE



XY-PLANE





Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

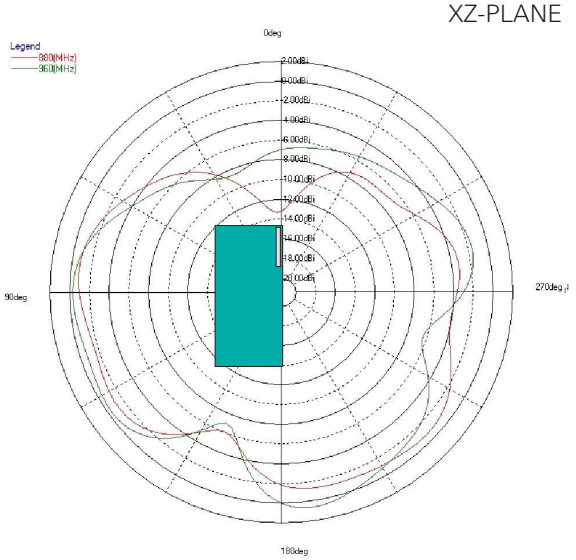
Pulse
A TECHNITROL COMPANY

Internal Quad Band PWB Antenna

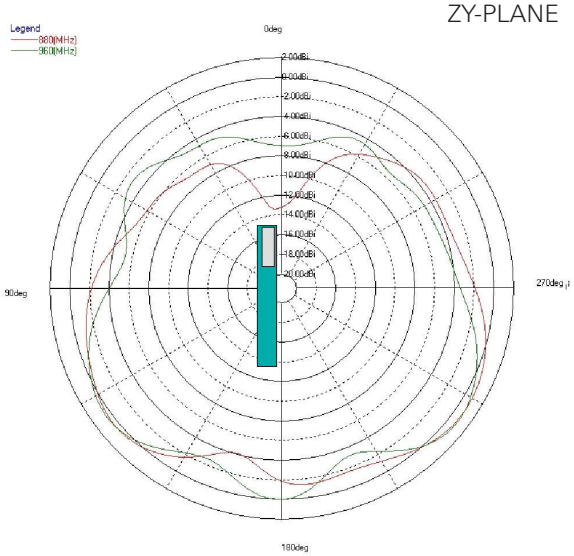
(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

880 – 960 MHz Typical Free Space Radiation Patterns

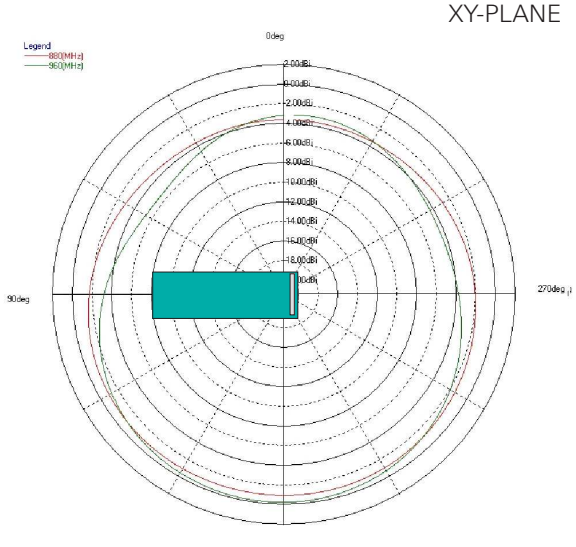
XZ-PLANE

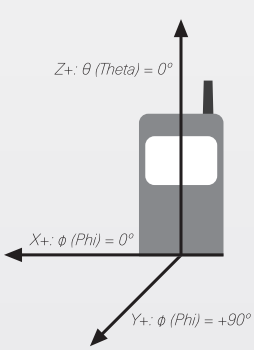


ZY-PLANE



XY-PLANE





Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

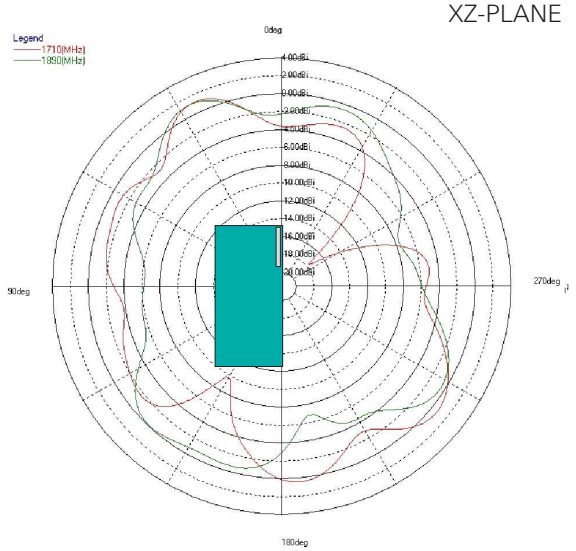
Pulse
A TECHNITROL COMPANY

Internal Quad Band PWB Antenna

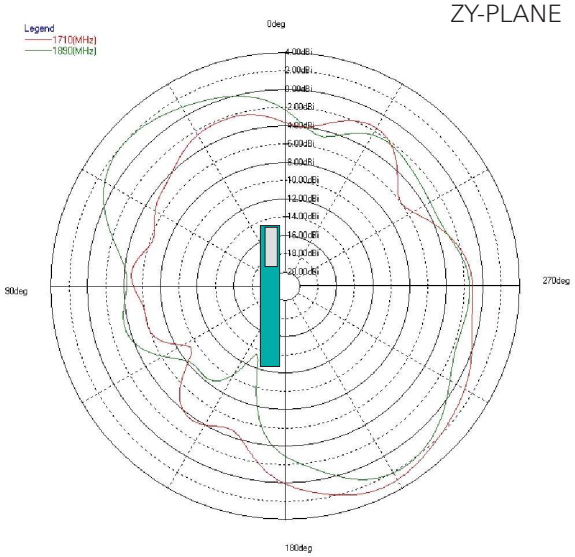
(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

1710 – 1880 MHz Typical Free Space Radiation Patterns

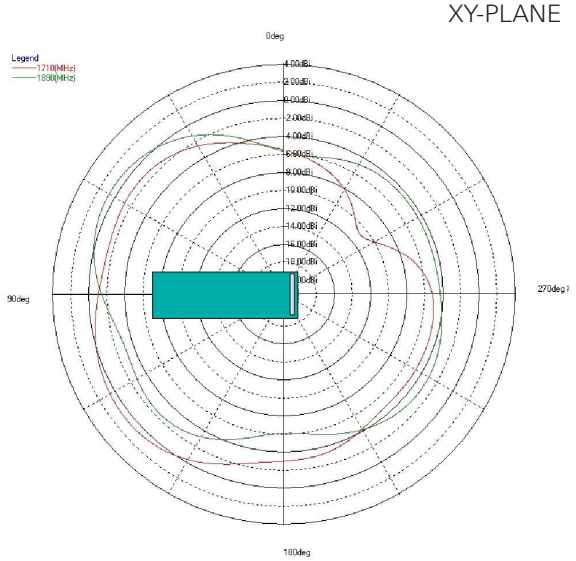
XZ-PLANE

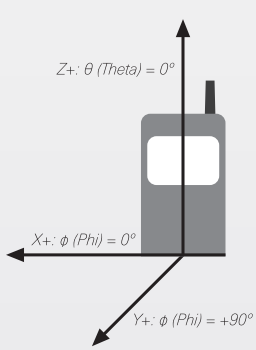


ZY-PLANE



XY-PLANE





Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

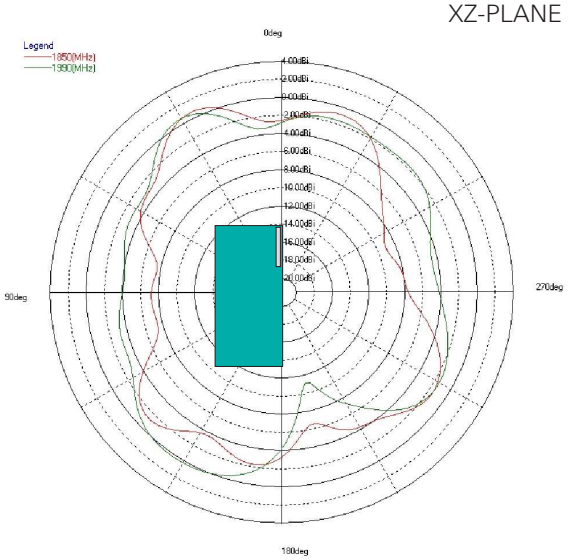
Pulse
A TECHNITROL COMPANY

Internal Quad Band PWB Antenna

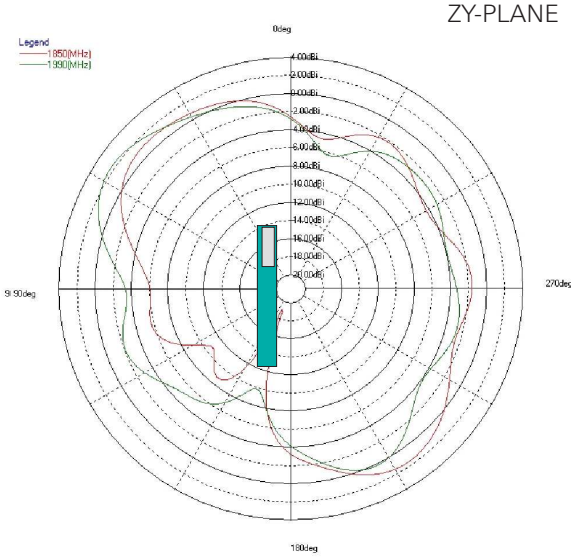
(25 x 87 x 0.2 mm, PWB antenna) Pulse Part Number: W3501

1850 – 1990 MHz Typical Free Space Radiation Patterns

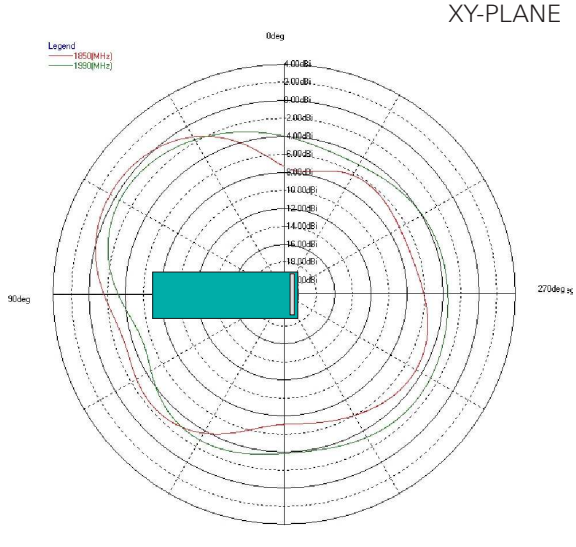
XZ-PLANE

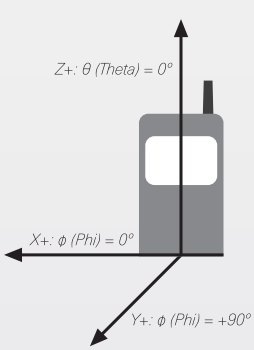


ZY-PLANE



XY-PLANE





Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

Pulse
A TECHNITROL COMPANY