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PSAS Propagation Test of the "GPS" Slot Antenna

Design frequency: 1.575 GHz
Actual frequency: TBD
Scan Frequency: 1.575 GHz
Polarization: Horizontal

Plots included in this PDF file:

Test Run #	Slot Antenna Orientation	Rec. Ant. Polarization
34	Configuration 1 but with slot facing rec. antenna	V
33	Configuration 1 but with slot facing rec. antenna	H
38	On side (like Conf. 2/3) but with slot facing rec. antenna	V
37	On side (like Conf. 2/3) but slot facing rec. antenna	H

ABSOLUTE GAIN DATA SHEET

EUT:	GPS Slot Antenna	Work Order:	PTLD0001
Serial Number:		Date:	12/09/03
Customer:	Portland State Aerospace Society / PSU AESS	Temperature:	73
Attendees:	none	Humidity:	32%
Cust. Ref. No.:		Barometric Pressure:	30.18
Tested by:	Holly Ashkannejhad	Power:	N/A
		Job Site:	EV01

SAMPLE CALCULATIONS

COMMENTS

1.575GHz. Antenna height = Slot height = 2.05m

EUT OPERATING MODES

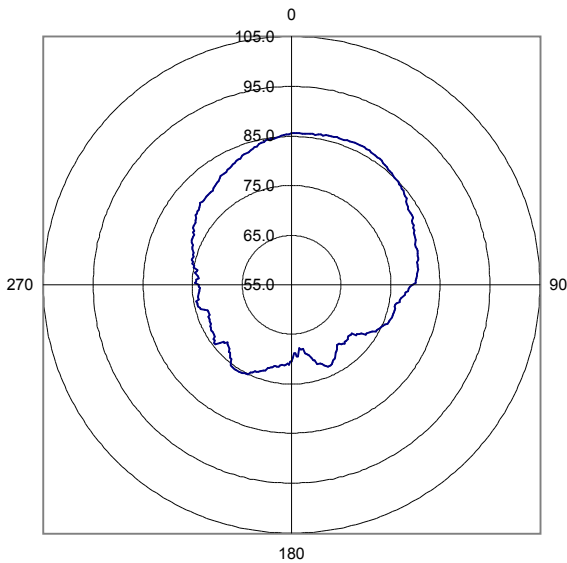
10dBm input power

	Test Distance (m)	Run #
	3	34

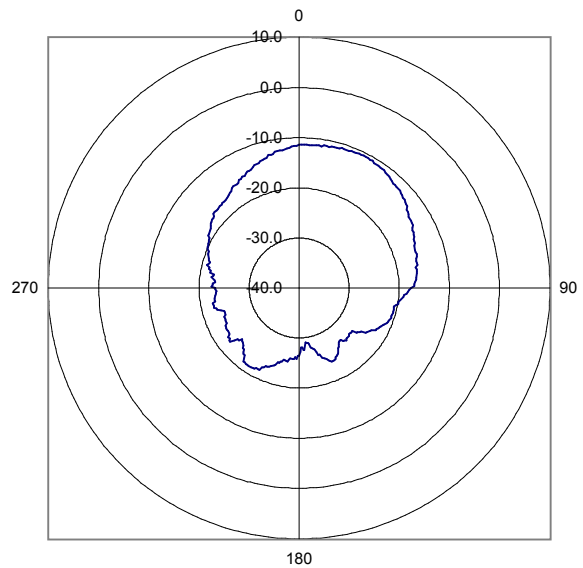
Other

Tested By:

**Relative
Gain of AUT**



**Absolute
Gain of AUT**



Frequency	1575.00
Absolute Gain of Reference Antenna (dBi)	8.62
Reference Antenna Relative Gain Max (dBuV/m)	105.60
AUT Relative Gain Max (dBuV/m)	86.30
Difference (Reference Antenna - AUT) (dB)	19.30
AUT Setup Loss (dB)	0.00
Maximum Absolute Gain of AUT (dBi)	-10.68
Correction Factor (Convert From Relative to Absolute Gain) (dB)	96.98
Measurement Antenna Polarity	Vertical
Antenna Under Test (AUT) Polarity	Horizontal

EUT:	GPS Slot Antenna	Work Order:	PTLD0001
Serial Number:		Date:	12/09/03
Customer:	Portland State Aerospace Society / PSU AESS	Temperature:	73
Attendees:	none	Humidity:	32%
Cust. Ref. No.:		Barometric Pressure:	30.18
Tested by:	Holly Ashkannejhad	Power:	N/A
		Job Site:	EV01

SAMPLE CALCULATIONS

COMMENTS

1.575GHz. Antenna height = Slot height = 2.05m

EUT OPERATING MODES

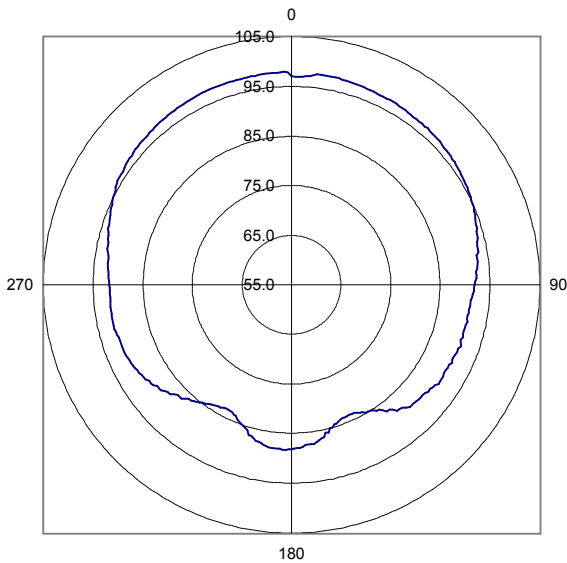
10dBm input power

	Test Distance (m)	Run #
	3	33

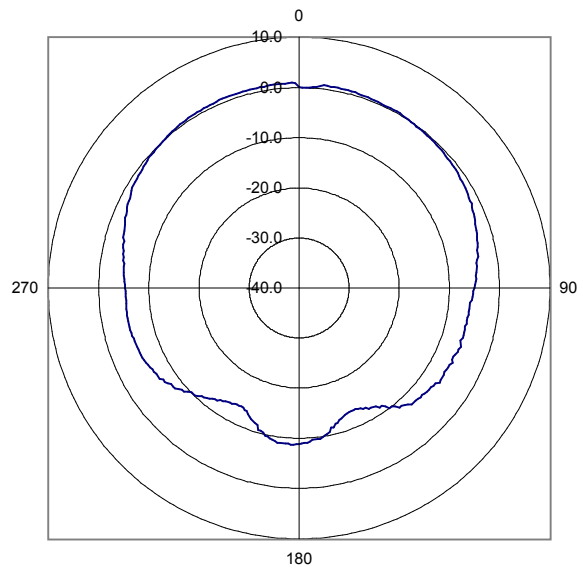
Other

Tested By: _____

Relative Gain of AUT



Absolute Gain of AUT



Frequency	1575.00
Absolute Gain of Reference Antenna (dBi)	8.62
Reference Antenna Relative Gain Max (dBuV/m)	105.60
AUT Relative Gain Max (dBuV/m)	97.90
Difference (Reference Antenna - AUT) (dB)	7.70
AUT Setup Loss (dB)	0.00
Maximum Absolute Gain of AUT (dBi)	0.92
Correction Factor (Convert From Relative to Absolute Gain) (dB)	96.98
Measurement Antenna Polarity	Horizontal
Antenna Under Test (AUT) Polarity	Horizontal

ABSOLUTE GAIN DATA SHEET

EUT:	GPS Slot Antenna	Work Order:	PTLD0001
Serial Number:		Date:	12/09/03
Customer:	Portland State Aerospace Society / PSU AESS	Temperature:	73
Attendees:	none	Humidity:	32%
Cust. Ref. No.:		Barometric Pressure:	30.18
Tested by:	Holly Ashkannejhad	Power:	N/A
		Job Site:	EV01

SAMPLE CALCULATIONS

COMMENTS

1.575GHz. Antenna height = Slot height = 1.77m

EUT OPERATING MODES

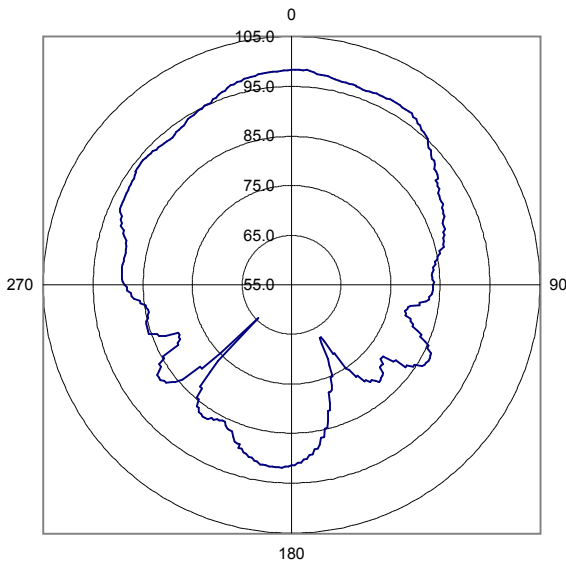
10dBm input power

	Test Distance (m)	Run #
	3	38

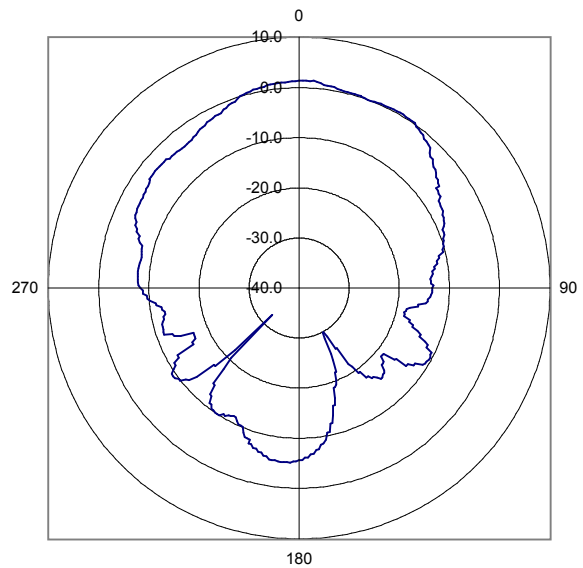
Other

Tested By: _____

Relative Gain of AUT



Absolute Gain of AUT



Frequency	1575.00
Absolute Gain of Reference Antenna (dBi)	8.62
Reference Antenna Relative Gain Max (dBuV/m)	105.60
AUT Relative Gain Max (dBuV/m)	98.40
Difference (Reference Antenna - AUT) (dB)	7.20
AUT Setup Loss (dB)	0.00
Maximum Absolute Gain of AUT (dBi)	1.42
Correction Factor (Convert From Relative to Absolute Gain) (dB)	96.98
Measurement Antenna Polarity	Vertical
Antenna Under Test (AUT) Polarity	Vertical

ABSOLUTE GAIN DATA SHEET

EUT: GPS Slot Antenna	Work Order: PTLD0001
Serial Number:	Date: 12/09/03
Customer: Portland State Aerospace Society / PSU AESS	Temperature: 73
Attendees: none	Humidity: 32%
Cust. Ref. No.:	Barometric Pressure: 30.18
Tested by: Holly Ashkannejhad	Power: N/A
	Job Site: EV01

SAMPLE CALCULATIONS

COMMENTS

1.575GHz. Antenna height = Slot height = 1.77m

EUT OPERATING MODES

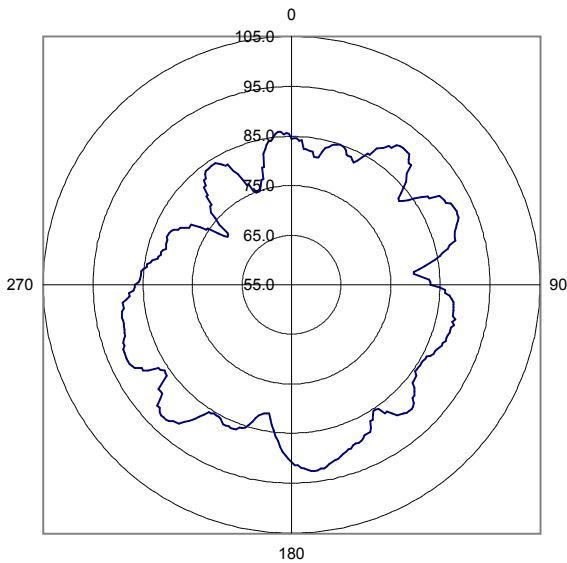
10dBm input power

	Test Distance (m)	Run #
	3	37

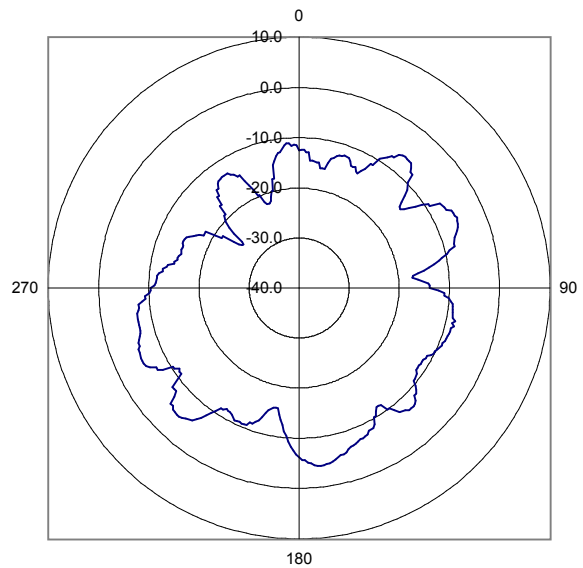
Other

Tested By:

**Relative
Gain of AUT**



**Absolute
Gain of AUT**



Frequency	1575.00
Absolute Gain of Reference Antenna (dBi)	8.62
Reference Antenna Relative Gain Max (dBuV/m)	105.60
AUT Relative Gain Max (dBuV/m)	92.70
Difference (Reference Antenna - AUT) (dB)	12.90
AUT Setup Loss (dB)	0.00
Maximum Absolute Gain of AUT (dBi)	-4.28
Correction Factor (Convert From Relative to Absolute Gain) (dB)	96.98
Measurement Antenna Polarity	Horizontal
Antenna Under Test (AUT) Polarity	Vertical