



TRADEPORT ELECTRONICS GROUP

Distributor of Precision Electronic Equipment

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Accredited Calibration Report

INSTRUMENT INFORMATION:

Customer: UEL Inc.
Address: 3000 Bristol Circle
Oakville, ON L6H 6G4
Manufacturer: Pasternack
Model: PE7021-10
Description: 10 dB attenuator
Serial Number: TP13-039
Customer Asset: 2


CALIBRATION INFORMATION

Certificate No.: 7412
Type: As Received
Date: 19-May-15
Tag Number: 22478
Temperature: 23.8 °C
Humidity: 52 % RH
Cal Location: In-House
Cal Procedure: TSP-301

STANDARDS USED:

Asset #	Model	Cal Date	Cal Due Date
C-203	HP 8341B Sweep Synth Gen	11-Sep-14	11-Sep-15
C-151	Brandywine_GPS8	NCR	NCR
C-188	Hewlett Packard 8482A	18-Nov-14	18-Nov-15
C-196	Instek GSP930	17-Apr-15	17-Apr-16
C-199	HP 437B	15-Jul-14	15-Jul-15

Performed by:


Lu Yao Tien

Approved by:


Dave Mukherjee

Deputy Lab. Quality Manager

Data Report

1 Frequency Flatness Measurement Accuracy

Level	Frequency	Lo-limit	Result	Hi- limit	P/F	Uncertainty
0 dBm	10 kHz	-10.580 dBm	-9.702 dBm	-9.420 dBm	Pass	4.0%
	50 kHz	-10.580 dBm	-9.704 dBm	-9.420 dBm	Pass	4.0%
	100 kHz	-10.580 dBm	-9.709 dBm	-9.420 dBm	Pass	4.0%
	500 kHz	-10.580 dBm	-9.705 dBm	-9.420 dBm	Pass	4.0%
	1 MHz	-10.580 dBm	-9.716 dBm	-9.420 dBm	Pass	4.0%
	10 MHz	-10.580 dBm	-9.702 dBm	-9.420 dBm	Pass	4.0%
	50 MHz	-10.580 dBm	-9.700 dBm	-9.420 dBm	Pass	4.0%
	100 MHz	-10.580 dBm	-9.748 dBm	-9.420 dBm	Pass	4.0%
	200 MHz	-10.580 dBm	-9.779 dBm	-9.420 dBm	Pass	4.0%
	300 MHz	-10.580 dBm	-9.798 dBm	-9.420 dBm	Pass	4.0%
	400 MHz	-10.580 dBm	-9.805 dBm	-9.420 dBm	Pass	4.0%
	500 MHz	-10.580 dBm	-9.852 dBm	-9.420 dBm	Pass	4.0%
	600 MHz	-10.580 dBm	-9.842 dBm	-9.420 dBm	Pass	4.0%
	700 MHz	-10.580 dBm	-9.902 dBm	-9.420 dBm	Pass	4.0%
	800 MHz	-10.580 dBm	-9.907 dBm	-9.420 dBm	Pass	4.0%
	900 MHz	-10.580 dBm	-9.961 dBm	-9.420 dBm	Pass	4.0%
	1.0 GHz	-10.580 dBm	-9.979 dBm	-9.420 dBm	Pass	4.0%
1.1 GHz	-10.580 dBm	-9.985 dBm	-9.420 dBm	Pass	4.0%	
1.2 GHz	-10.580 dBm	-10.022 dBm	-9.420 dBm	Pass	4.0%	
1.3 GHz	-10.580 dBm	-10.093 dBm	-9.420 dBm	Pass	4.0%	
1.4 GHz	-10.580 dBm	-10.105 dBm	-9.420 dBm	Pass	4.0%	
1.5 GHz	-10.580 dBm	-10.165 dBm	-9.420 dBm	Pass	4.0%	

2 Attenuation Measurement Accuracy

Frequency	Level	Lo-limit	Result	Hi- limit	P/F	Uncertainty
50 MHz	10 dBm	-0.576 dBm	0.258 dBm	0.576 dBm	Pass	4.1%
	8 dBm	-2.576 dBm	-1.727 dBm	-1.424 dBm	Pass	4.1%
	6 dBm	-4.576 dBm	-3.732 dBm	-3.424 dBm	Pass	4.1%
	4 dBm	-6.576 dBm	-5.747 dBm	-5.424 dBm	Pass	4.1%
	2 dBm	-8.576 dBm	-7.715 dBm	-7.424 dBm	Pass	4.1%
	0 dBm	-10.576 dBm	-9.711 dBm	-9.424 dBm	Pass	4.1%
	-2 dBm	-12.576 dBm	-11.713 dBm	-11.424 dBm	Pass	4.1%
	-4 dBm	-14.576 dBm	-13.710 dBm	-13.424 dBm	Pass	4.1%
	-6 dBm	-16.576 dBm	-15.686 dBm	-15.424 dBm	Pass	4.1%
	-8 dBm	-18.576 dBm	-17.669 dBm	-17.424 dBm	Pass	4.1%
	-10 dBm	-20.576 dBm	-19.664 dBm	-19.424 dBm	Pass	4.1%
	-20 dBm	-30.58 dBm	-29.65 dBm	-29.42 dBm	Pass	4.1%
	-30 dBm	-40.58 dBm	-39.69 dBm	-39.42 dBm	Pass	4.1%
	-40 dBm	-50.58 dBm	-49.70 dBm	-49.42 dBm	Pass	4.1%
	-50 dBm	-60.58 dBm	-59.87 dBm	-59.42 dBm	Pass	4.1%
	-60 dBm	-70.58 dBm	-69.90 dBm	-69.42 dBm	Pass	4.1%

Note:

**Uncertainty of measurement had been incorporated into Lo-limit and Hi-limit as Guard Bands
Unless otherwise noted, As Received = As Left**