System Description: The DPS-100D Digital RF Power Measurement System includes a precision directional coupler ordered by EIA line size, and DPS-100D Digital RF power meter electronics package with onboard backlit LCD display. This system is suitable for measuring analog or digital RF signals with accuracy within +/- 5% of reading. Use the DPS-100D as a standalone power monitor/antenna protection system or use more than one DPS-100D to create monitor system for master antenna applications or for complete RF facility site monitoring. The DPS-100D is part of a larger family of site monitoring products available from Broadcast Devices, Inc.

***DPS-100D* Key Features Include:**

Simultaneous Forward/Reflected Power Indication *– Onboard Backlit LCD Display with* ***proprietary 3 strike protection system for sustained high VSWR conditions***

Onboard Web Server for remote interrogation of parameters

Transmission Line Surface Temperature Indication – Second Temperature Sensor input available - Transmission Line Pressure Indication***

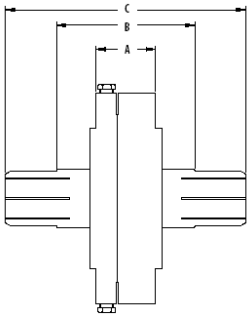
Phantom Powered RS-485 Communications bus for easy interconnection of other sensors using industry standard category 5 cabling or SWP series supervisory chassis available from BDI - Operate standalone or part of a larger system with up to 255 additional DPS-100D sensors
Analog 0-5 VDC scaled outputs of power indication for remote control input
8 Programmable General Purpose inputs for interlock, lock out tag out status, remote reset etc.

2 – Form C programmable relays for interlock and alarm indication

* Second temperature indication requires the use of BDI P/N TMP-100 temperature sensor

** Requires use of the BDI P/N PSW-100 pressure sensor and requires a suitable gas termination such as the ERI gas barrier assemblies. These gas barrier assemblies are available in many line sizes including 1-5/8", 3-1/8", 4-1/6", 6-1/8", 8-3/16" and 9" EIA transmission line sizes. (See table below for gas barrier data)

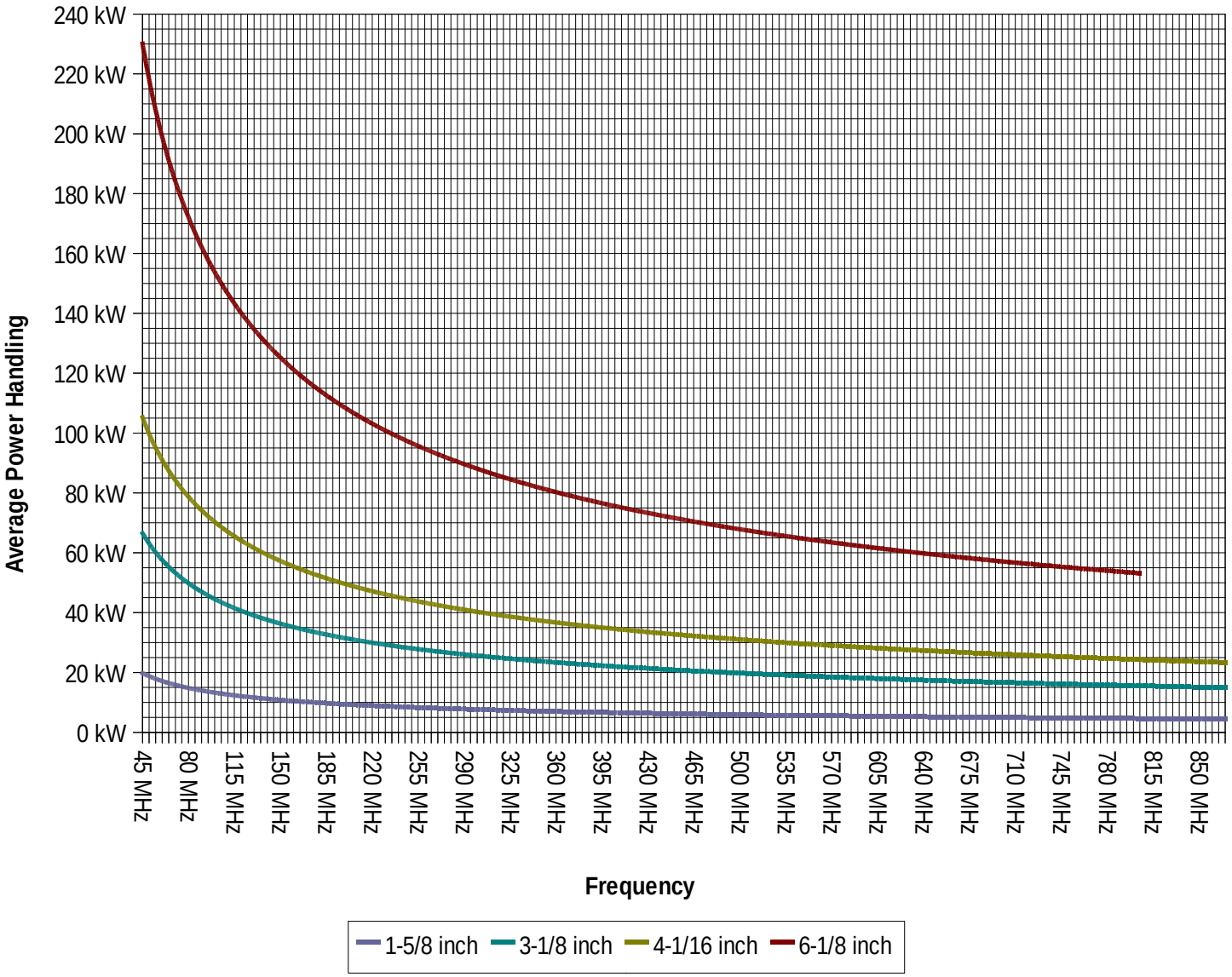
Part Number	Line Size	Impedance	Diameter		Dimension A		Dimension B		Dimension C		Weight	
	in	Ohm	in	mm	in	mm	in	mm	in	mm	lbs	kg
RLA050-16	7/8	50	2.25	57.15	1.125	28.575	2.00	50.80	3.062	77.775		
RLA150-16	1-5/8	50	3.50	88.90	1.375	34.925	2.575	65.405	3.701	94.005		
RLA350-16	3-1/8	50	5.19	131.83	1.00	25.400	2.735	69.469	5.160	131.064	4.8	2.2
RLA450-16	4-1/16	50	6.19	157.23	1.740	44.196	4.080	103.632	7.080	179.832	10.0	4.5
RLA650-16	6-1/8	50	8.12	206.25	1.630	41.402	4.046	102.768	7.109	180.569	19.4	8.8
RLA675-16	6-1/8	75	8.12	206.25	1.630	41.402	4.051	102.895	7.055	179.197	19.4	8.8
RLA775-16	7-3/16	75	9.50	241.30	1.630	41.402	4.375	111.125	7.750	196.850	13.6	6.2
RLA875-16	8-3/16	75	11.00	279.40	1.630	41.402	4.792	121.717	8.172	207.569	20.0	9.1



DPS-100D Digital RF Power Measurement System
Specifications

Frequency Range:	Sensor: 50 Mhz to 860 Mhz
Power Range:	Sensor: Linear Range -40dbm to +10dbm. No damage to +23dbm Directional Coupler: See table below
<u>Coupler Common Features</u>	
Coupler Sizes available:	**7/8", 1-5/8", 3-1/8",4-1/16",6-1/8",8-3/16",9"**
Coupler Loss:	-60 dB
VSWR:	1.03:1 or better
Directivity:	30 dB or better
Frequency Range:	50 to 860 MHz
Impedance:	50 ohms
Measurement Type:	True RMS
Accuracy:	+/- 5% of reading.
Dynamic Range:	50db Linear Dynamic Range. Measurements possible over 60db with reduced accuracy.
Power Measurement Range	0 – 175 KW – Coupler Line Size Dependent
Measurement Capabilities:	Forward and Reflected RF Power, Transmission line temperature (Deg F / Deg C user selectable) 1 – External Temperature and line pressure sensors. 6 – User configurable closure inputs. (typically patch panels, lock-out/tag-out)
Integrated Digital Display:	2 Line x 16 character LCD display of Fwd/Ref RF Power, Temperature (x2), Line Pressure Dedicated Icons for VSWR fault, Alert Status, Communications Status, RF Power High/Low thresholds, DC power input status and LAN connection status.
Communications Interfaces:	Ethernet, RS-485, CAN, USB
Network Protocols:	SNMP, SMTP, TCP/IP, UDP, SNTP, HTTP
Remote Control Interface	2 – Configurable VDC proportional power outputs, ***2 – Form C configurable interlock/status relays*** ***2 – Configurable External GP inputs for fault reset,*** etc.
12 Position Terminal Block:	6 – Configurable General Purpose Inputs for lock out tag out, patch panel, external interlock strings, etc.
Ext. Temperature Sensor Input	3 – Position terminal block mates with BDI *TMP-100 T Temperature Sensor*
Ext. Pressure Sensor Input:	*3 Position terminal block mates with BDI PSW-100 Pressure Sensor*
DC Input:	*12VDC Power Supply Available from BDI*

Frequency versus Power Handling



DPS-100D Digital RF Power Measurement System also available in the following coupler sizes:
N type,7/8",and 8-3/16" Contact factory for details

NOTE: For 1-5/8", 3-1/8", 4-1/16", 6-1/8", 8-3/16", flange to flange length is 10 inches.
For N type coupler, connector to connector length is 4.9 inches
For 7/8" couplers, connector to flange length is 4.5 inches

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