



## PRODUCT DATA SHEET

D8421

**Werlatone® Mismatch Tolerant®** High Power Broadband RF Combiners and Dividers will operate into High Load VSWR Conditions, for extended periods, without damage. With extensive experience as a supplier to military platforms worldwide **Werlatone®** designs its High Power Broadband Combiners, Power Dividers, and N-Way Combiners for proper operation in the most stringent operating conditions.

### Features:

High Power      Wide Bandwidths      Small Size      High Isolation      Custom Designs Available

### Electrical Specifications:

Frequency:	1.5 - 30 MHz
Power:	12,000 W CW
Insertion Loss:	0.3 dB Max.
VSWR:	1.30:1 Max.
Phase Balance:	± 5° Max.
Amplitude Balance:	0.2 dB Max.
Isolation:	20 dB Min.

### Mechanical Specifications:

Type:	Connectorized
Material:	Aluminum 6061-T6
Surface Finish:	Chem. Film Per MIL-DTL-5541F Type I Class 3 (Yellow Iridite) RoHS Compliant Available
Operating Temperature:	-55°C to +75°C
Storage Temperature:	-60°C to +85°C
Weight:	68.0 lbs. (-80)
Size:	19.5 x 22.5 x 8.75"

### Connector Configurations:

Model	J1-J8	J9-J10	J11	J12	J13
D8421-80	N Female	SMA Female	1 5/8 EIA	9 Pin D-Sub Conn.	MS3122E12-3P FAN PWR 220 VAC

**When specified, Werlatone® High Power Combiners and RF Dividers** will tolerate full input failures on adjacent port(s). This insures that remaining transmitter(s) may continue to operate until the amplifier system can be properly shut down for maintenance. Choose your specific connector configuration from a list of options. Additional connector configurations for our High Power RF Combiners/Dividers, Non-Coherent Combiners, and N-Way Combiners are available upon request.

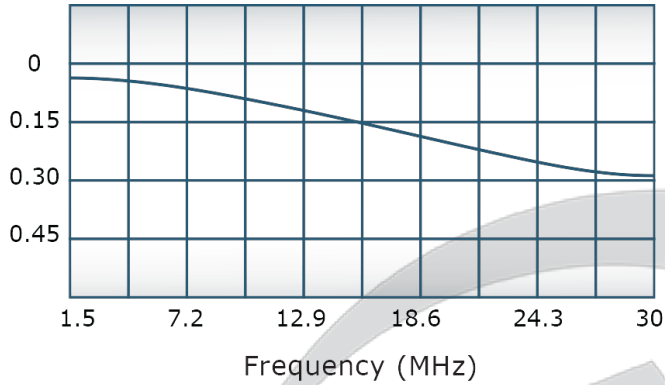
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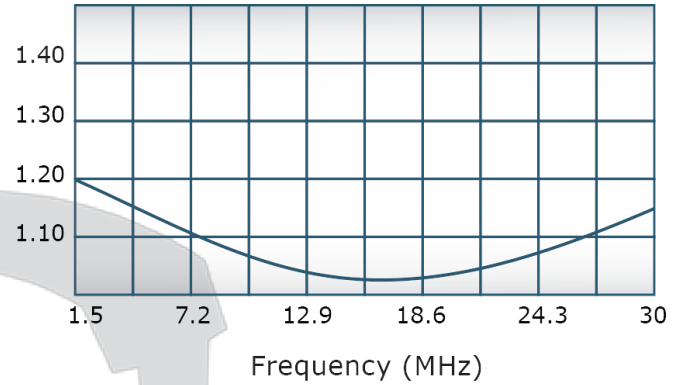


## Performance Data (Specifications subject to change without notice):

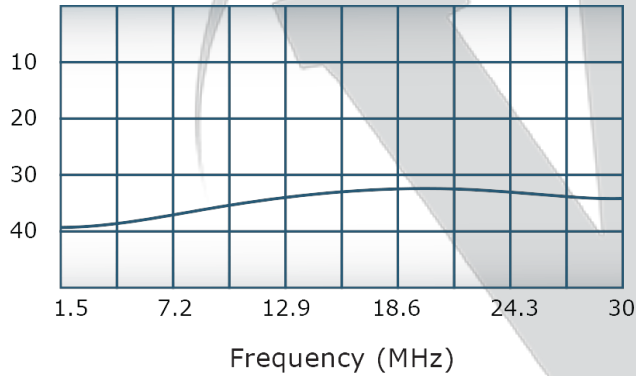
Insertion Loss:



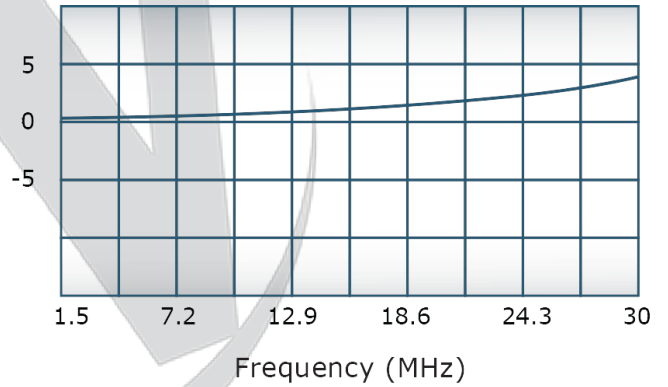
VSWR:



Isolation:



Phase Balance:



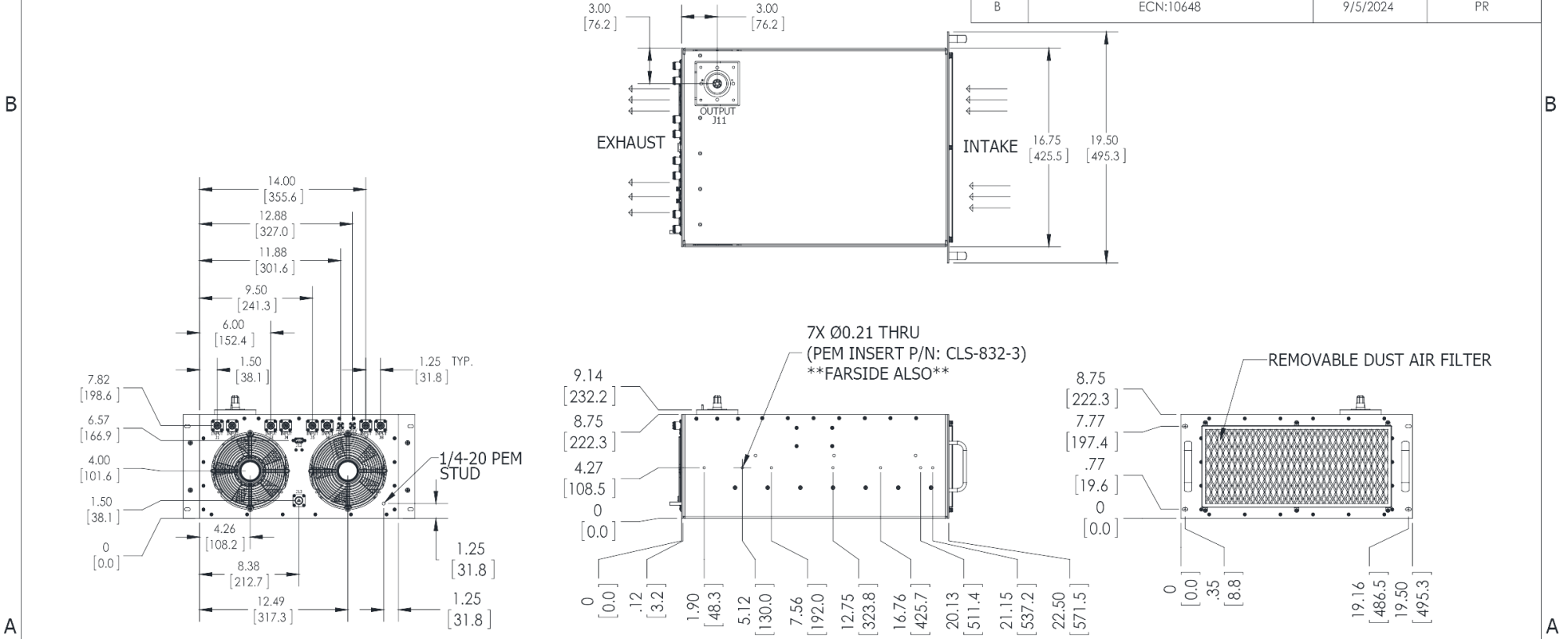
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	2/10/2014	SC
B	ECN:10648	9/5/2024	PR



**NOTES: UNLESS OTHERWISE SPECIFIED**  
 1. MATERIAL: ALUMINUM  
 2. SURFACE FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)  
 3. CONNECTORS: J1-J8: N FEMALE

J9-J10: SMA FEMALE (COUPLER OPTIONAL)  
 J11: 1 5/8 EIA  
 J12: 9 PIN D-SUB CONN.  
 J13: MS3122E12-3P FAN PWR 220 VAC  
 PIN A (NEUTRAL), PIN B (GND)  
 PIN C (HOT)

9 PIN D-SUB PIN CONFIGURATION  
 PIN 3 - 10K THERMISTOR 1 (+) (J1-12)  
 PIN 4 - 10K THERMISTOR 2 (+) (J3-14)  
 PIN 5 - 10K THERMISTOR 3 (+) (J5-16)  
 PIN 6 - 10K THERMISTOR 4 (+) (J7-18)  
 PIN 7 - ALL THERMISTORS (-)  
 PIN 9 - CHASSIS GND

UNLESS OTHERWISE SPECIFIED	OWN	DATE	<b>WERLATONE</b> SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563
* INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 * DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES (FRACTIONS) * PARENTHETICAL INFO FOR REF ONLY * DIMENSIONS ARE IN INCHES (FRACTIONS) * DIMENSIONAL LIMITS APPLY TO SURFACE PROCESSES * TOLERANCES: ANGLES = ±1° 3 PL ± .005 (13) 2 PL ± .015 (30) * REMOVE ALL BURRS AND SHARP EDGES R.01 MAX * CONCENTRICITY MACHINED DIA-.002 FPM * MACHINE TOOL FINISHING-.003 FPM	SC	2/10/2014	
	CHK	DATE	
	PR	2/10/2014	TITLE
	ENGR	DATE	<b>OUTLINE</b>
	BW	2/10/2014	SIZE
	MFR	DATE	CAGE CODE
	QA	DATE	DWG NO
	RLSE	DATE	REV
APPLICATION			B 28812 21143-500
THIRD ANGLE PROJECTION			SCALE
			1:8
			SHEET 1 OF 1

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