
**PRODUCT DATA SHEET**
**D11839**

CW Power limitations of a Radial Combiner structure are removed as there is no longer a Coaxial to Waveguide transition limiting your CW Power and/or higher Duty Cycles at Peak Power operation.

**Werlatone®** has developed a new class of patented pending microwave power combiners with extremely High Power handling capability. This Combiner class is designed to operate over the full bandwidth of a given waveguide connector. Furthermore, the CW power handling of each Combiner is only limited to the power rating of the specific waveguide connector utilized. More Bandwidth and Higher CW Power Handling.

**Features:**

High Power      Wide Bandwidths      Low Loss      Custom Designs Available

**Electrical Specifications:**

Frequency:                      5300-5900 MHz  
 Power:                              8,000 W CW  
 Insertion Loss:                0.15 dB Max.  
 VSWR:                              1.40:1 Max.  
 Phase Balance:                 $\pm 5^\circ$  Max.  
 Isolation:                        Non-Isolated

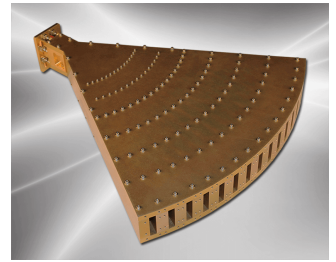
**Mechanical Specifications:**

Type:                                E-Plane Combiner  
 Material:                         Aluminum 6061-T6  
 Surface Finish:                Chem. Film Per MIL-DTL-5541F Type I Class 3 (Yellow Iridite)  
 Operating Temperature:      -55°C to +75°C  
 Storage Temperature:        -60°C to +85°C  
 Size:                                19.32 x 17.97 x 3.19"

**Connector Configurations:**

<b>Model</b>	<b>Sum Port (J1)</b>	<b>Input/Output (J2-J17)</b>
D11839-C02	WR159	Half Height WR159

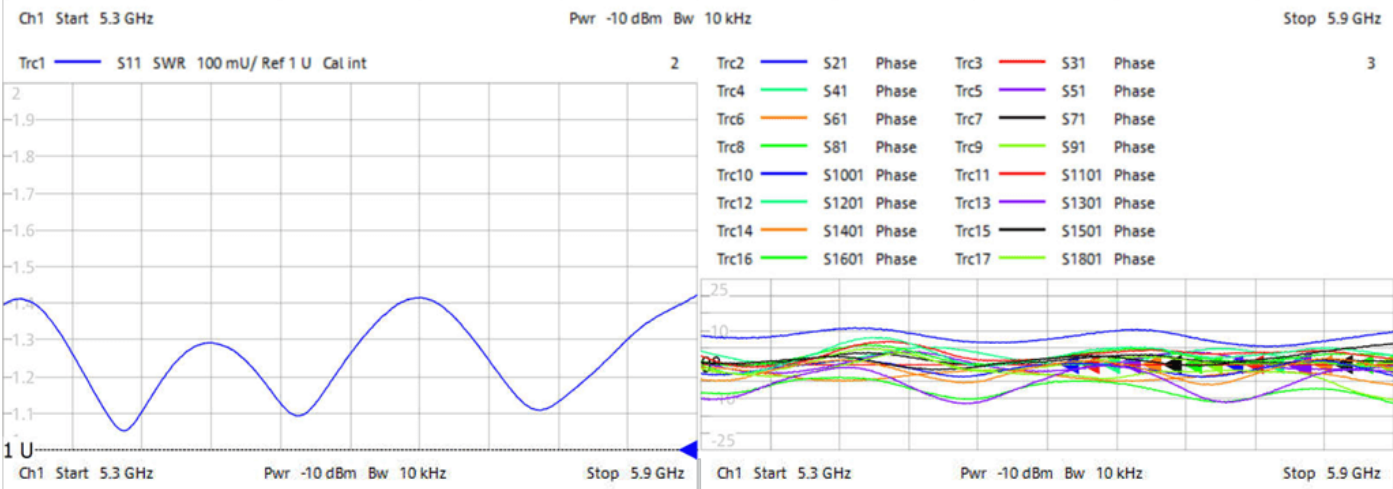
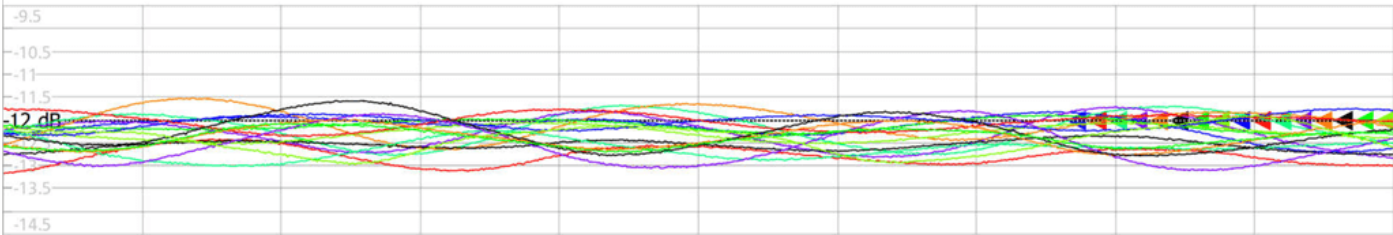
Additional connector configurations for our High Power RF Combiners/Dividers, Non-Coherent Combiners, and N-Way Combiners are available upon request.



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

2/6/2020 11:23:31 AM  
1318.7006K24-102107-jP

Trc18	S21	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc19	S31	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc20	S41	dB Mag	0.5 dB/ Ref -12 dB	Cal int	1
Trc21	S51	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc22	S61	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc23	S71	dB Mag	0.5 dB/ Ref -12 dB	Cal int	
Trc24	S81	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc25	S91	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc26	S1001	dB Mag	0.5 dB/ Ref -12 dB	Cal int	
Trc27	S1101	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc28	S1201	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc29	S1301	dB Mag	0.5 dB/ Ref -12 dB	Cal int	
Trc30	S1401	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc31	S1501	dB Mag	0.5 dB/ Ref -12 dB	Cal int	Trc32	S1601	dB Mag	0.5 dB/ Ref -12 dB	Cal int	
Trc33	S1801	dB Mag	0.5 dB/ Ref -12 dB	Cal int											



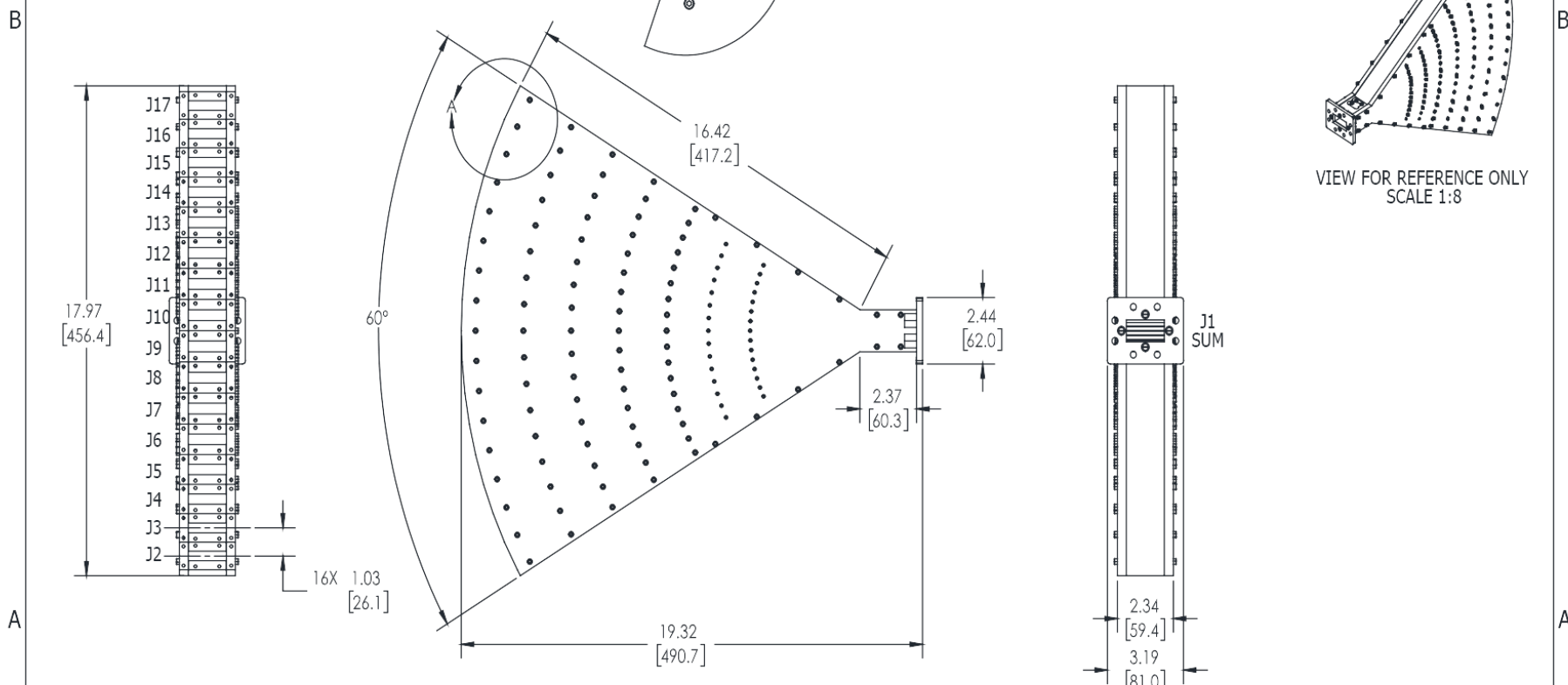
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DETAIL A  
 SCALE 1 : 2  
 INPUT TO ADJACENT INPUT ANGLE

REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	2/13/2020	CS



**NOTES: UNLESS OTHERWISE SPECIFIED**

- MATERIAL:** ALUMINIUM 6061-T6.
- FINISH:** CHEM-FILM PER MIL-DTL-5541F TYPE I, CLASS 3 (YELLOW IRIDITE).
- CONNECTORS:**  
 J1: WR159 CPRF.  
 J2-J17: HALF HEIGHT WR159 CUSTOM FLANGE.

UNLESS OTHERWISE SPECIFIED		DWN	DATE	WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563
<ul style="list-style-type: none"> <li>• INTERPRET DRAWING AWG MIL-STD-300</li> <li>• DIMENSIONING PER ASME Y14.5M-2009</li> <li>• DIMENSIONAL INFO FOR REF ONLY</li> <li>• DIMENSIONS ARE IN INCHES (mm)</li> <li>• DIMENSIONAL LIMITS APPLY BEFORE PROCESSES</li> <li>• TOLERANCES:               <ul style="list-style-type: none"> <li>ANGLES ± 2°</li> <li>3 PL. ± .005 [127]</li> <li>2 PL. ± .002 [51]</li> </ul> </li> <li>• REMOVE ALL BURS AND SHARP EDGES R.02 MAX</li> <li>• CONCENTRICITY MACHINED SURF: .002 FIM</li> <li>• MACHINE TOOL MISMATCH: .003 MAX</li> </ul>		CHK	DATE	
D11839		CS	2/13/2020	TITLE
USED ON		ENGR	DATE	OUTLINE
APPLICATION		SF	6/11/2019	SIZE
THIRD ANGLE PROJECTION		PRGR	DATE	B 28812
		QA	DATE	CAGE CODE
		ELSE	DATE	DWG NO
				21699-500
				SCALE
				1:4
				REV
				-
				SHEET 1 OF 1

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