

PRODUCT DATA SHEET

QH7856

Our patented 3 dB 90° Hybrid Couplers provide:

- Superior component performance starting at 3:1 Bandwidth.
- Thicker center boards for high power and increased repeatability.
- Bonded structures which eliminate any air gaps between substrates.
- More sections per bandwidth for better coupling flatness.
- Electrically shorter and physically smaller RF components.

Features:

High Power Wide Bandwidths Small Size Connectorized Drop-In & Surface Mount

Electrical Specifications:

Frequency: 500 - 2000 MHz
Power: 200 W CW
Insertion Loss: 0.55 dB Max.
VSWR: 1.35:1 Max.
Phase Balance: $90^\circ \pm 5^\circ$ Max.
Amplitude Balance: ± 0.5 dB Max.
Isolation: 18 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 $+75^\circ\text{C}$
Storage Temperature: -60°C to $+85^\circ\text{C}$
Weight: 4 oz.
Size: 2.1 x 1.49 x 0.75"

Port Configurations:

J1	J2	J3	J4
Input	-3 dB, 0°	-3 dB, -90°	Isolated
-3 dB, 0°	Input	Isolated	-3 dB, -90°
-3 dB, -90°	Isolated	Input	-3 dB, 0°
Isolated	-3 dB, -90°	-3 dB, 0°	Input

Werlatone's breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the difference port is internally terminated with a high power termination. This eliminates the need for a customer supplied external load for each Hybrid Coupler.

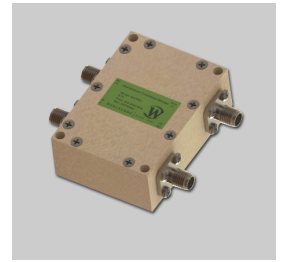
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WERLATONE

Model QH7856
90° Hybrids Connectorized

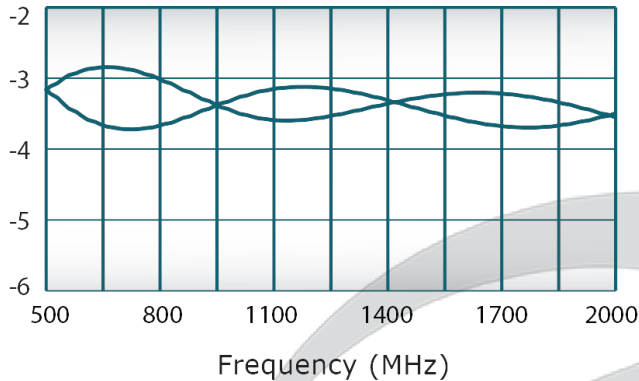


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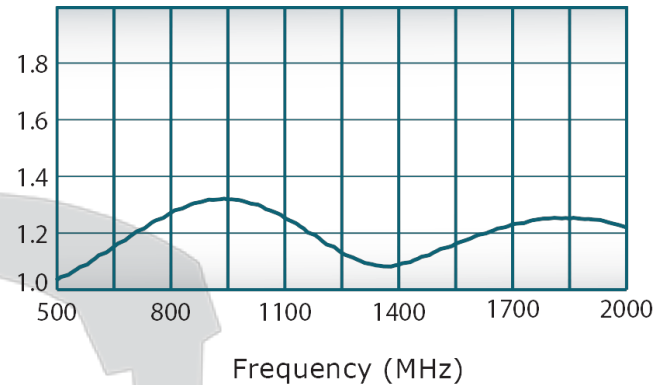
QH7856

Performance Data (Specifications subject to change without notice):

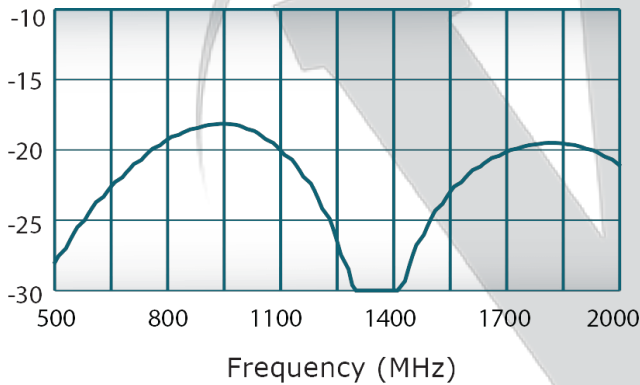
Coupling:



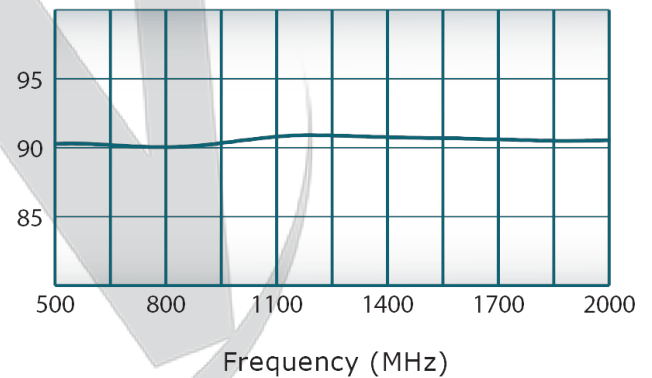
VSWR:



Isolation:



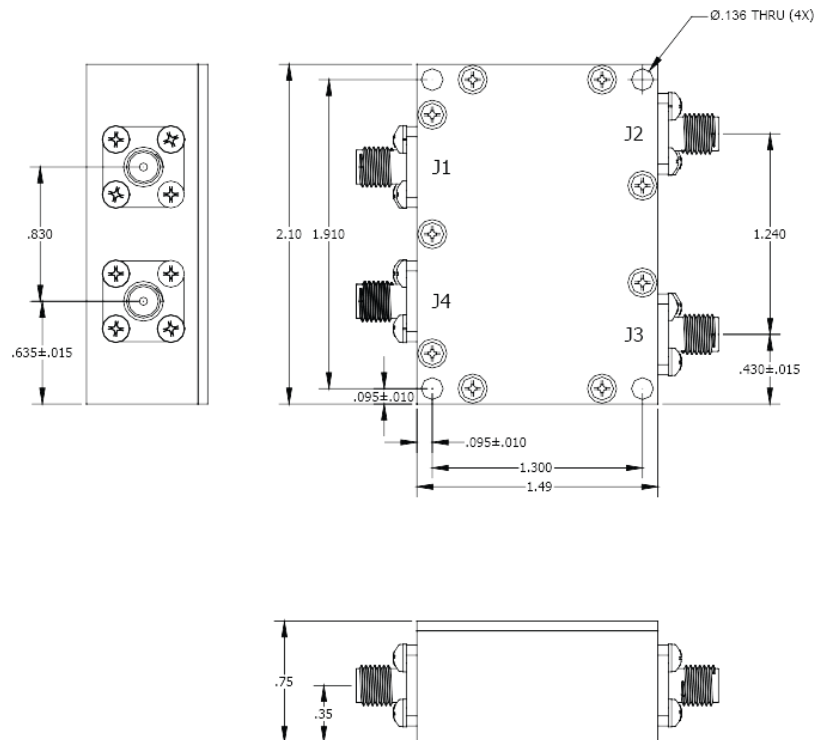
Phase Balance:



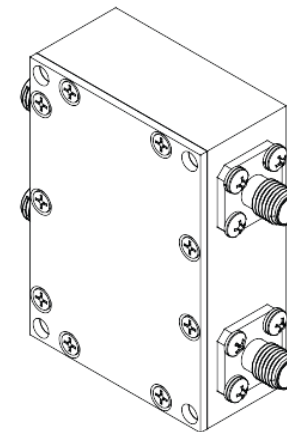
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REVISION HISTORY					
DATE	REV	REVISION RECORD	AUTH	CHK	APPV
1/18/07	-	INITIAL RELEASE	GP	NH	BW
1/30/07	A	ECN 4154	GP	NH	BW
1/14/09	B	ECN 5049	GP	NH	BW
8/16/11	C	ECN 5443	GP	NH	BW
10/15/19	D	ECN 9859	GP	NH	BW



ELECTRICAL SPECIFICATIONS

Frequency:	0.5 - 2.0 GHz
Power:	200 Watts CW
Insertion Loss:	0.55 dB Max.
Amplitude Balance:	± 0.5 dB Max.
Phase Balance:	90° ± 5° Max.
VSWR:	1.35:1
Isolation:	18 dB Min. J2-J3
Temperature:	-55°C To +85°C

Port Configurations

J1	J2	J3	J4
Input	-3 dB, 0°	-3 dB, -90°	Isolated
-3 dB, 0°	Input	Isolated	-3 dB, -90°
-3 dB, -90°	Isolated	Input	-3 dB, 0°
Isolated	-3 dB, -90°	-3 dB, 0°	Input

NOTES UNLESS OTHERWISE SPECIFIED:

- MAT'L: ALUMINUM 6061-T6
- FINISH: CHEM FILM PER MIL-DTL-5541F Type I Class 3 (Yellow Iridite)
- Connectors: All SMA Female

UNLESS OTHERWISE SPECIFIED		DWN	DATE	WERLATONE SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
- INTERPRET DRAWING (AW MIL-STD-100) - DIMENSIONING PER ASME Y14.5M-2009 - PARENTHESES FOR REF ONLY - DIMENSIONS ARE IN INCHES - DIMENSIONAL LIMITS APPLY BEFORE PROCESSING	- TOLERANCES: ANGLE ± 2° 3 PL ± .005 2 PL ± .015	GP	1/14/10				
THIRD ANGLE PROJECTION		CHK	DATE	QH7856-102		20303-500	
		ENGR	DATE				
		APVD	DATE	SIZE		DWG NO	
		QA	DATE	A		28812	
		RLSE	DATE	SCALE		1:1	
						SHEET 1 OF 1	

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