

Werlatone[®], Inc.

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Werlatone's QH7644 is a high performance, broadband, 3 dB 90° Hybrid Coupler that operates from 0.5 GHz to 2.5 GHz at 150 Watts CW. The QH7644 is ideally suited for use in balanced amplifiers and features very tight amplitude balance, low insertion loss and high isolation.

The QH7644 is a drop-in style stripline assembly. It can easily be installed into a RF/Microwave PCB assembly. RF connection to the four ports is established by soldering a lead to the four exposed traces.

Highlights:

- 5:1 Bandwidth
- Drop-In Package
- Low Loss
- High Isolation
- Available in multiple RoHS Surface Finishes

Notes

- All specifications guaranteed
- * Insertion loss specified at +25°C
- Test data provided with each unit shipped
- Mount coupler flush with heatsink
- Stripline structure has exposed copper lands. PCB must have a cutout to accommodate part. Align 50 Ohm lands with 0.10" exposed land and make solder joint with lead (not supplied).
- Surface Finish Options:

QH7644-Aq: Immersion Silver (RoHS)

QH7644-Au: ENIG (RoHS)

QH7644-PSn: Immersion Tin (RoHS)

90° Hybrid Coupler

Model QH7644

Frequency: 500 - 2500 MHz

> Power: 150 W CW

Insertion Loss: 0.55 dB Max.*

> **VSWR:** 1.35:1 Max.

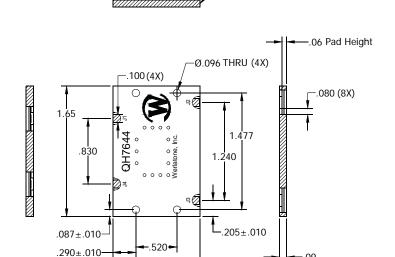
19 dB Min. Isolation:

Phase Balance: ± 5° Max

Amplitude Balance: \pm 0.6 dB Max.

Port Configurations

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	J1	J2	J3]4	
	Sum (Σ)	-3 dB∠Θ	-3 dB∠Θ -90	Isolated (Δ)	
	-3 dB∠Θ	Sum (Σ)	Isolated (Δ)	-3 dB∠⊖ -90	
	-3 dB∠Θ -90	Isolated (Δ)	Sum (Σ)	-3 dB∠Θ	
	Isolated (Δ)	-3 dB∠ Θ -90	-3 dB∠Θ	Sum (Σ)	



Hatched Areas Denote Edge Plating



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Typical Performance

