SURFACE MOUNT 20dB DIRECTIONAL COUPLER

**REV 1.0.0** 



### **APPLICATIONS**

- Signal sampling
- Signal injection
- Source leveling
- Signal isolation
- Power monitoring
- Reflection measurement

### **FEATURES**

- 2100 2200 MHz
- High power
- Very low loss
- High directivity
- Flat coupling
- Compact and low profile
- Dimensionally stable materials for best CTE match
- Lead-Free, RoHS compliant

## **SPECIFICATIONS**

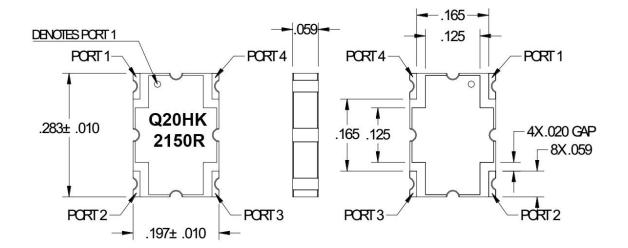
**TABLE 1: TYPICAL SPECIFICATIONS\*** 

FREQ	POWER	PART	INSERTION LOSS	COUPLING	DIRECTIVITY		OPERATING TEMP	ΘJC
(MHz)	(W)	NUMBER	(dB)	(dB)	(dB)	VSWR	(°C)	(°C/W)
2100-2200	80	Q20HK-2150R	0.3	20.5 ± 0.5	30	1.15	-55 to +95	

<sup>\*</sup> Units tested with small signal using Electro-Photonics test board at 25°C. Specifications subject to change without notice.

## MECHANICAL OUTLINE

\* Dimensions are inches.

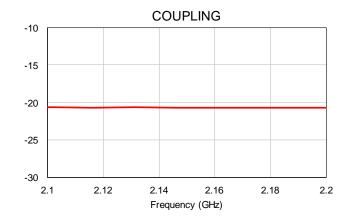


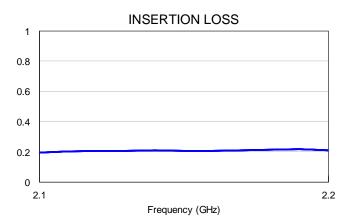
<sup>†</sup> Please consult sales (sales@electro-photonics.com) for custom footprints, sizes, and/or specifications.

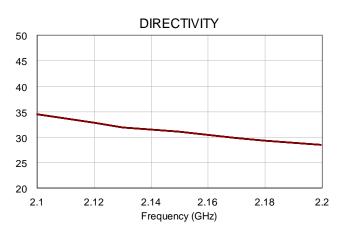
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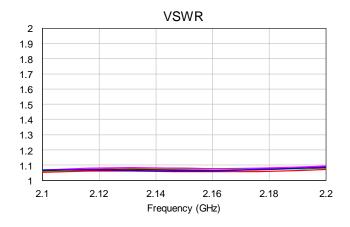
**REV 1.0.0** 

## TYPICAL PERFORMANCE

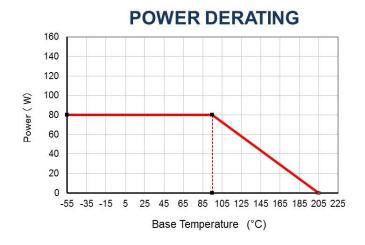








# **POWER DERATING**

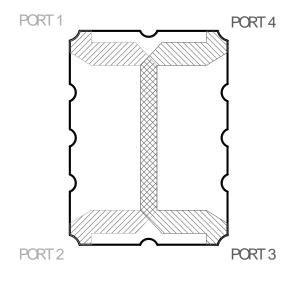


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# DIRECTIONAL COUPLERS

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# PIN CONFIGURATION

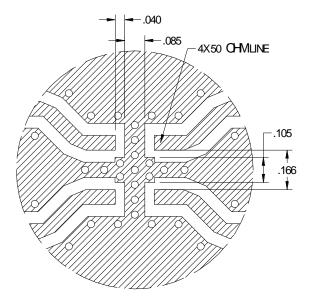


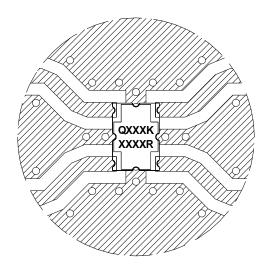
PORT 1	PORT 2	PORT 3	PORT 4
IN	DIRECT	ISOLATED	COUPLED
DIRECT	IN	COUPLED	ISOLATED
ISOLATED	COUPLED	IN	DIRECT
COUPLED	ISOLATED	DIRECT	IN

ELECTRO - PHOTONICS

# **MOUNTING FOOTPRINT**

Electro-Photonics test board is designed using 30 mil RO4350B material. Land pattern design must be taken into consideration when using a different thickness and/or dielectric constant in order to achieve optimal performance.





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# **ORDERING INFO\***

\* Consult sales (<u>sales@electro-photonics.com</u>) for custom configuration, size, footprint, and/or specifications. Tape & Reel available upon request (with minimum order quantities).



① PRODUCT CODE	② SIZE	③ FREQUENCY	④ PLATING
20dB DIRECTIONAL COUPLER	A = .250 X .200 K = .283 X .197 B = .560 X .200	MHz (SEE TABLE 1)	R = IMMERSION TIN
	G = .560 X .350 D = .650 X .480	(OLL MOLL I)	E = ENIG (Electroless nickel immersion gold)



The Q20HK-2150R is lead free, RoHS compliant product.