



**SUMMARY TEST DATA  
ON  
QC-7G18G-SFF-30W**

**PMI MODEL: QC-7G18G-SFF-30W IS A 7.0 TO 18.0 GHZ, 90° HYBRID COUPLER. THIS MODEL OFFERS A PHASE BALANCE OF  $\pm 5$  DEGREES MAXIMUM AND LOW INSERTION LOSS OF 1.3 dB MAXIMUM.**



**August 3rd, 2015**

**DESIGNED BY: PMI ENGINEERING**

**TESTED & REPORTED BY:  
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SEBASTIAN PALACIO**

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## SUMMARY TEST DATA ON QC-7G18G-SFF-30W

### DESCRIPTION

PMI MODEL: QC-7G18G-SFF-30W IS A 7.0 TO 18.0 GHz, 90° HYBRID COUPLER. THIS MODEL OFFERS A PHASE BALANCE OF  $\pm 5$  DEGREES MAXIMUM AND LOW INSERTION LOSS OF 1.3 dB MAXIMUM.

### SPECIFICATIONS

- FREQUENCY RANGE: 7.0 TO 18.0 GHz
- INSERTION LOSS:  $\leq 1.3$  dB
- VSWR:  $\leq 1.40:1$
- NOMINAL SPLIT: 3.01 dB
- ISOLATION: 18 dB MINIMUM
- AMPLITUDE BALANCE:  $\leq \pm 0.5$  dB
- PHASE BALANCE:  $\leq \pm 5^\circ$
- POWER HANDLING: AVERAGE  $\leq 30$  W  
PEAK  $\leq 1$  kW
- IMPEDANCE: 50  $\Omega$
- CONNECTORS: SMA FEMALE (X4)
- FINISH: PAINTED BLUE

### ENVIRONMENTAL RATINGS

- TEMPERATURE: -55 °C TO +85 °C (OPERATING)  
-65 °C TO +125 °C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

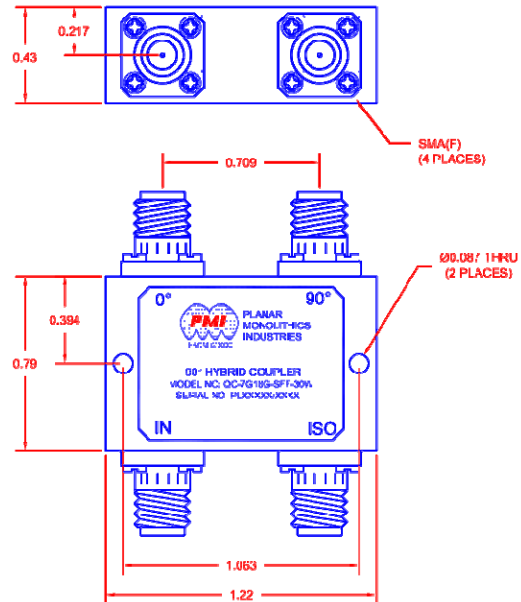
NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

**PMI CONFIDENTIAL AND PROPRIETARY**

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	02/14/11	

### MECHANICAL OUTLINE



### PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001 CERTIFIED



APPROVALS		DATE		TITLE			
DRAWN	<i>M. Barry</i>	DATE	02/14/11	PRODUCT FEATURE QC-7G18G-SFF-30W			
CHECKED		SIC	FROM NO	TO NO	REV.		
ISSUED		A	05XQ0	27025861	A1		
		SCALE	N:S	SHEET	1 OF 1		



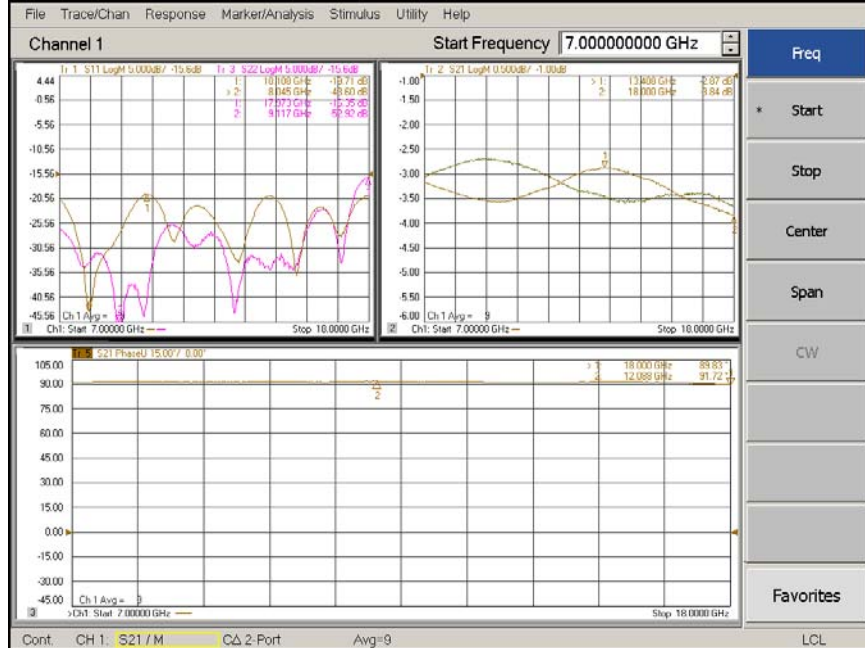
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<b>TEST. ITEM NO</b>	<b>PARAMETERS</b>	<b>SPECIFIED VALUE</b>	<b>TEST RESULTS</b>	<b>QA QC</b>
1	Frequency Range	7.0 TO 18.0 GHz	7.0 TO 18.0 GHz	
2	Insertion Loss	≤1.3 dB	0.83dB (See Plot)	
3	VSWR	≤1.40:1	1.36:1 (See Plot)	
4	Nominal Split	3.01 dB	Pass	
5	Isolation	18 dB Minimum	20.14dB (See Plot)	
6	Amplitude Balance	≤±0.5 dB	±0.48dB (See Plot)	
7	Phase Balance	≤±5°	±1.72°	
8	Power Handling	Average ≤30 W Peak ≤1 kW	Average ≤30 W Peak ≤1 kW	
9	Impedance	50 Ω	50 Ω	



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**RETURN LOSS / INSERTION LOSS + AMPLITUDE BALANCE  
PHASE BALANCE**



**ISOLATION**

