

**TYPICAL CHARACTERISTICS
ON
QC-052-YR3**

PMI MODEL NUMBER QC-052-YR3 IS A 3dB, 90 DEGREE QUADRATURE COUPLER THAT WHEN A SIGNAL IS APPLIED TO ANY PORT WILL SPLIT EQUALLY BETWEEN THE PORTS ON THE OTHER SIDE WITH THE ADJACENT PORT REMAINING ISOLATED. THE PHASE RELATIONSHIP IS 0° TO THE PORT DIRECTLY OPPOSITE AND -90° TO THE PORT ON THE DIAGONAL.



30-Oct-25

Tested By:

Eric K.

Reported By:

Noor A.

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Outline Drawing

DESCRIPTION:

PMI MODEL NUMBER QC-052-YR3 IS A 3dB, 90 DEGREE QUADRATURE COUPLER THAT WHEN A SIGNAL IS APPLIED TO ANY PORT WILL SPLIT EQUALLY BETWEEN THE PORTS ON THE OTHER SIDE WITH THE ADJACENT PORT REMAINING ISOLATED. THE PHASE RELATIONSHIP IS 0° TO THE PORT DIRECTLY OPPOSITE AND -90° TO THE PORT ON THE DIAGONAL.

SPECIFICATIONS:

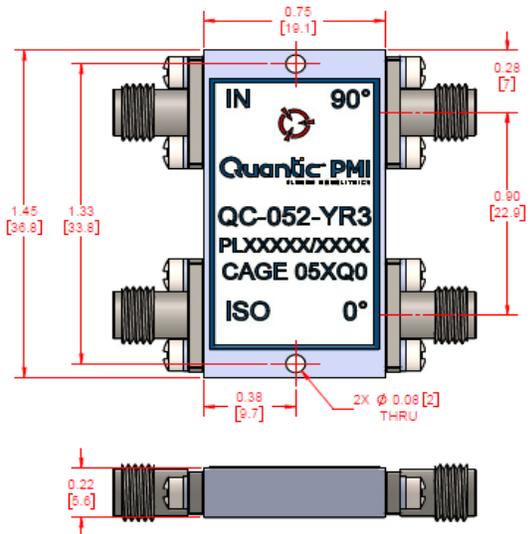
- FREQUENCY RANGE:..... 0.5 TO 2.0 GHz
- NOMINAL SPLIT:..... 3.01 dB
- INSERTION LOSS:..... 0.4 dB MAXIMUM
- ISOLATION:..... 18 dB MINIMUM
- AMPLITUDE BALANCE:..... ±2.5 dB MAXIMUM
- PHASE BALANCE:..... ±2.5° MAXIMUM
- VSWR (ALL PORTS):..... 1.5:1 MAXIMUM
- RF INPUT POWER HANDLING:..... 30 W CW MAXIMUM
1 kW PEAK MAXIMUM (1µs PW, 1% DC)
- PORT CONNECTORS:..... SMA FEMALE (REMOVABLE)
- SIZE:..... 1.45" X 0.75" X 0.22"
- FINISH:..... PAINTED BLUE

ENVIRONMENTAL RATINGS:

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

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

REV	DESCRIPTION	DATE	APPROVED
A1	ORIGINAL RELEASE	11/2008	



PMI CONFIDENTIAL AND PROPRIETARY

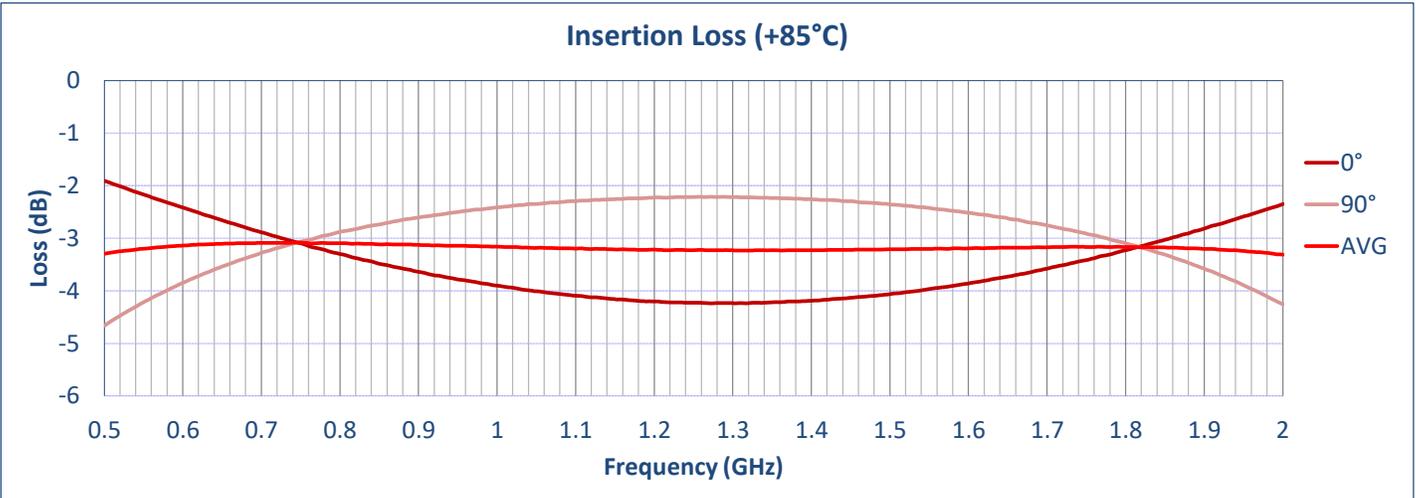
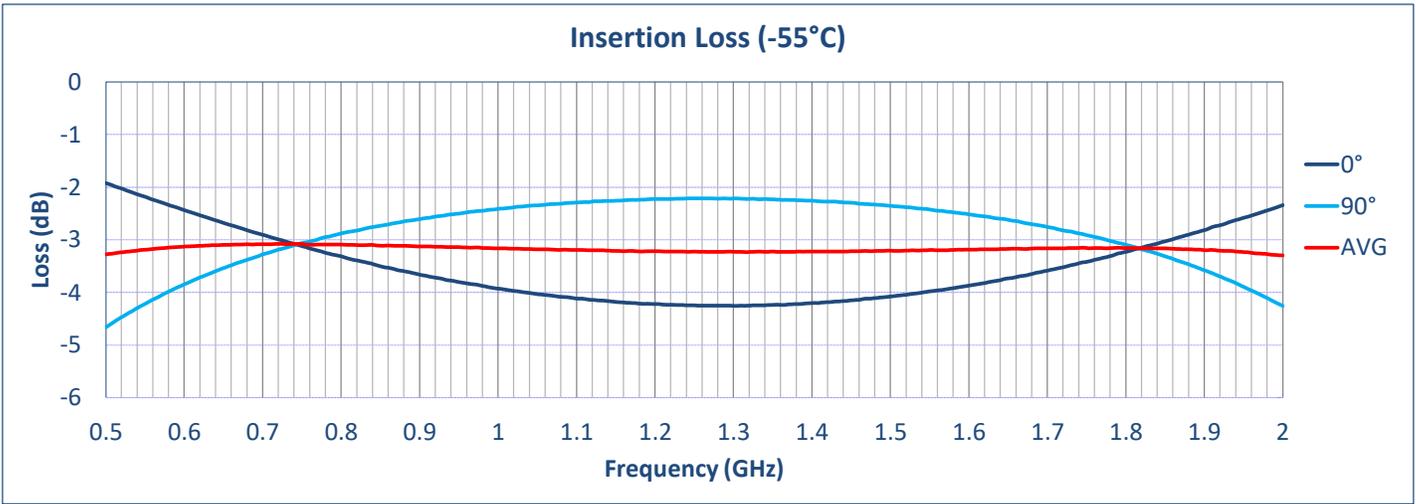
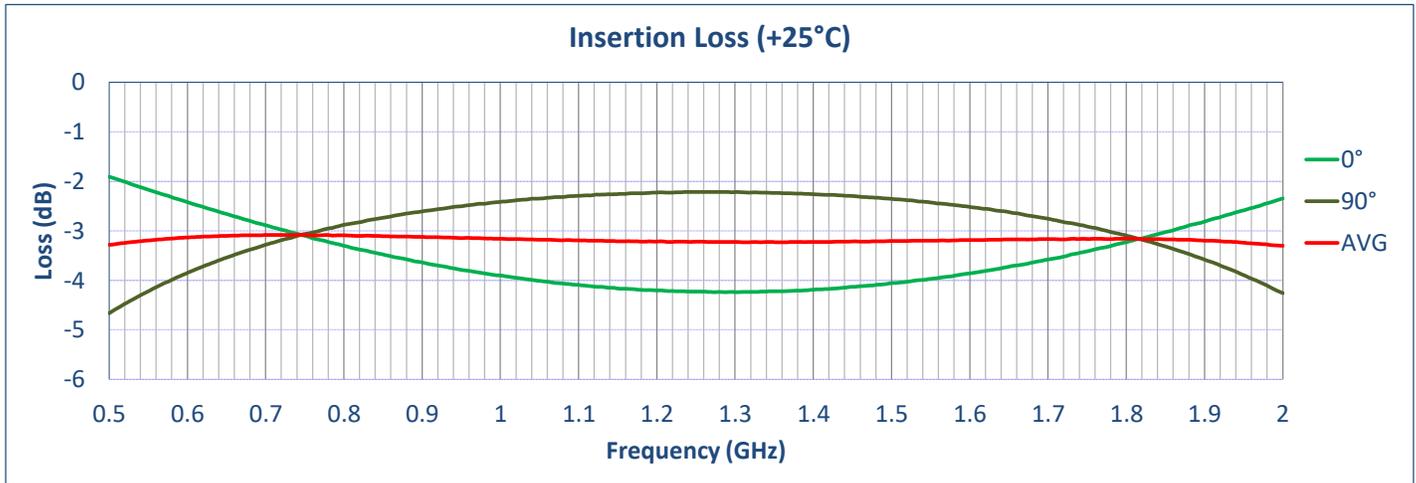
APPROVED		DATE	FORM A (REVISED 08/12/12) SEE NOTE 1 FOR USE	
S. ACHAR		01/2009	QUANTIC PMI	
DESIGNED BY		DATE	27052780	
CHECKED BY		DATE	A1	
SCALE		1:1	SHEET 1 OF 1	

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Typical Characteristics

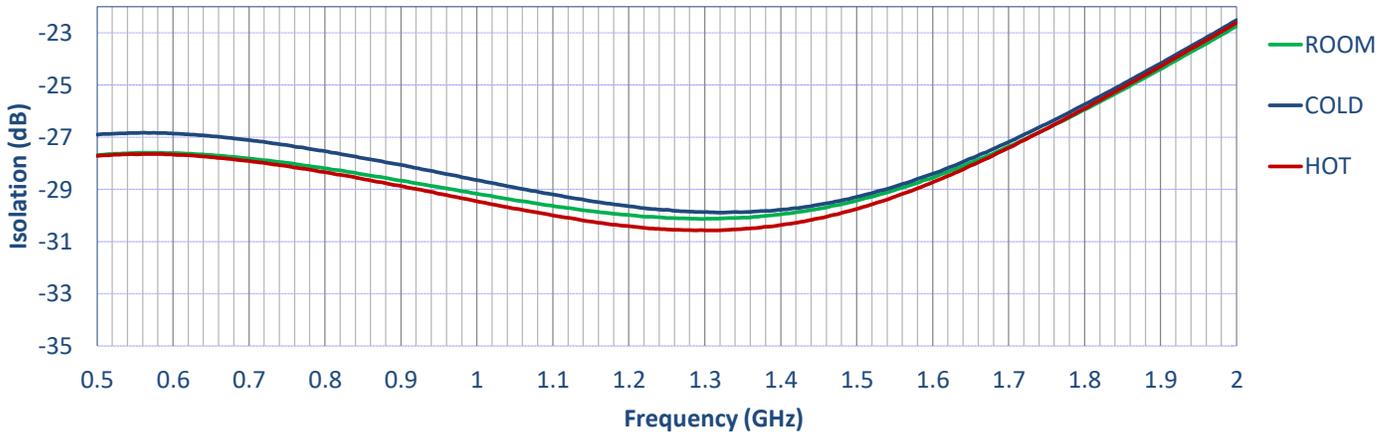
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			+25°C	-55°C	+85°C
1	Frequency Range	0.5 GHz to 2 GHz	0.5 GHz to 2 GHz		
2	Nominal Split	3.01 dB	3.01 dB	3.01 dB	3.01 dB
3	Insertion Loss	0.4 dB Max.	0.29 dB	0.29 dB	0.3 dB
4	Isolation	18 dB Min.	22.7 dB	22.5 dB	22.6 dB
5	VSWR: In/Out	1.5:1 Max.	1.06:1	1.06:1	1.07:1
6	Amplitude Balance	±2.5 dB Max.	+1.38 dB 0 dB	+1.36 dB 0 dB	+1.38 dB 0 dB
7	Phase Balance	±2.5° Max.	+1.4° -0.3°	+1.6° -0.3°	+1.5° -0.3°

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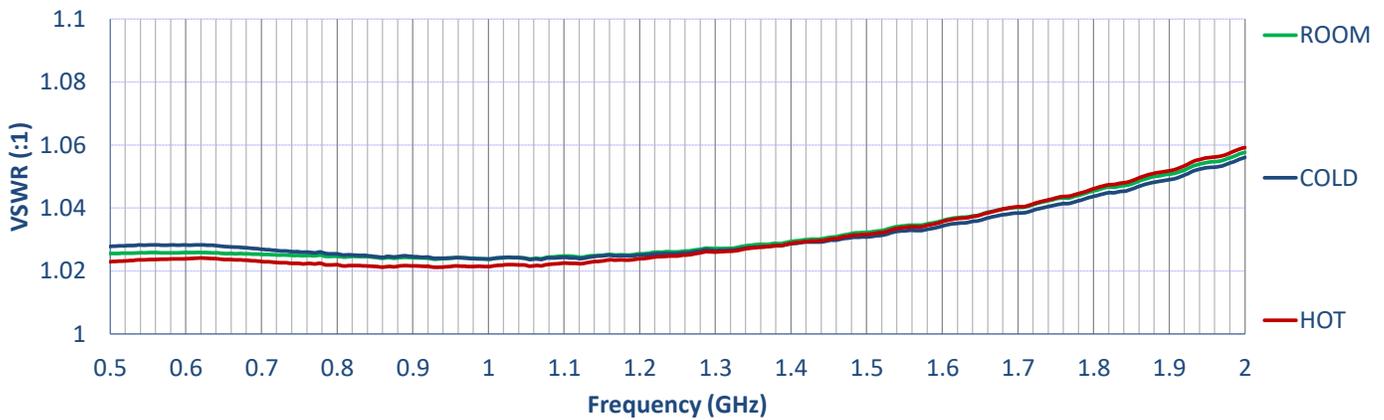


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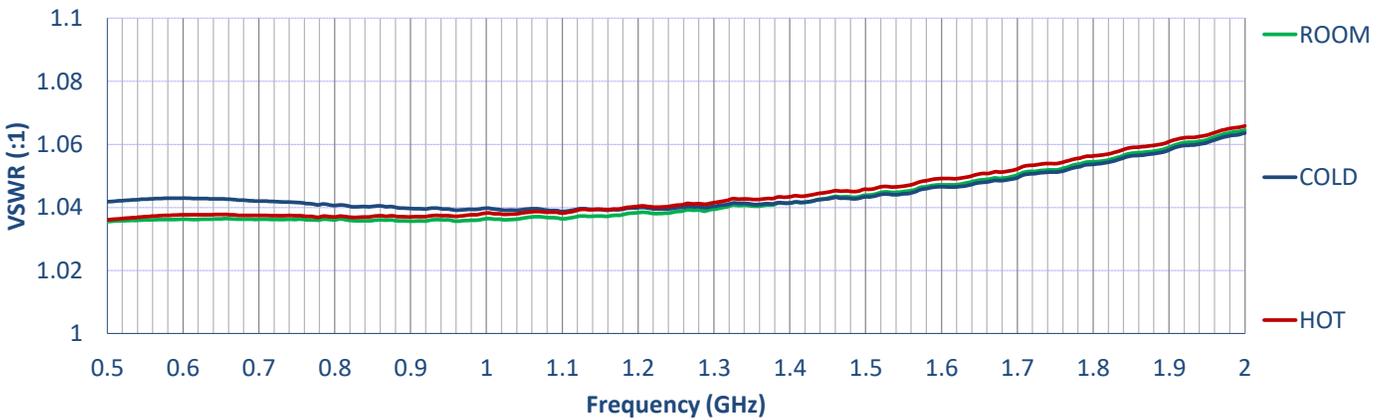
Isolation



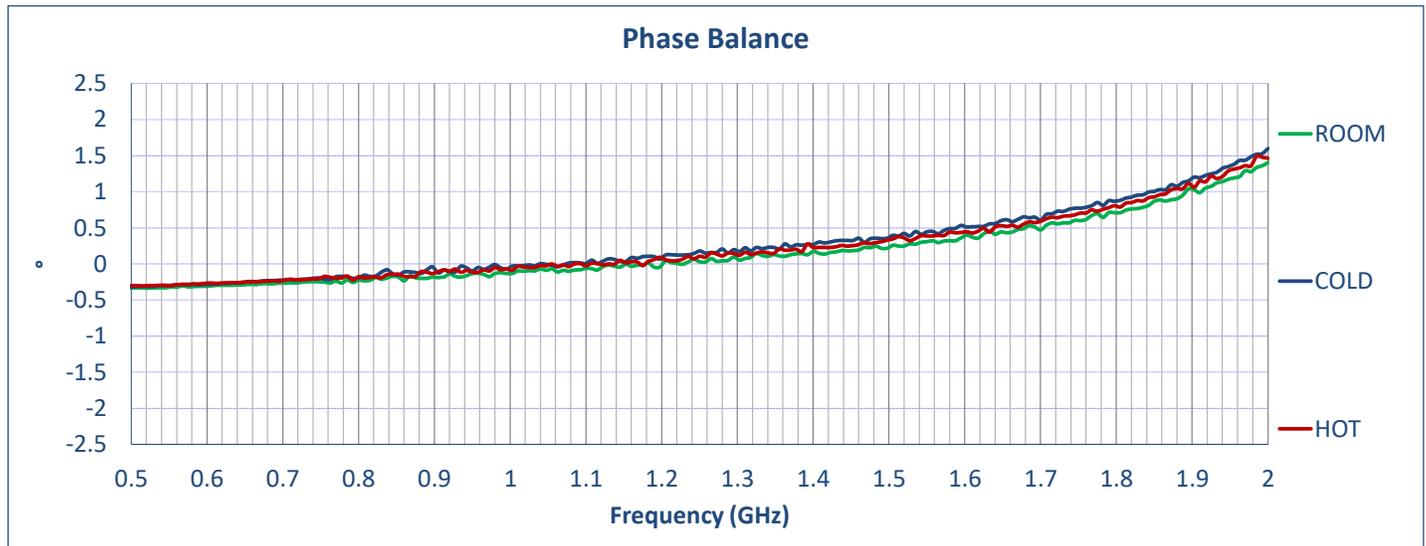
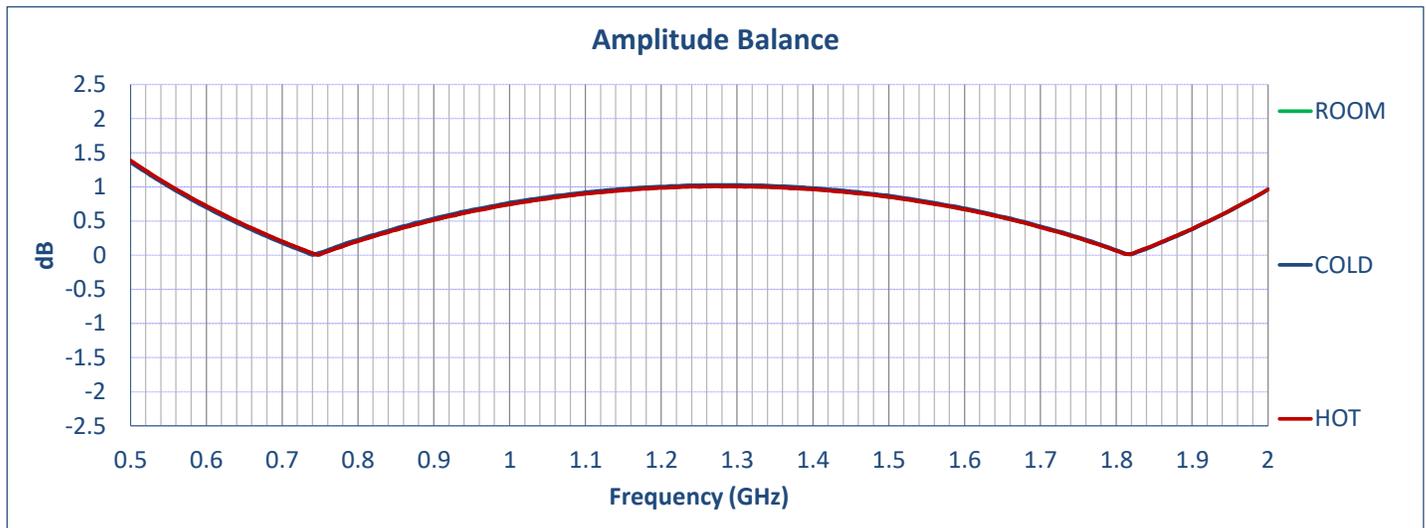
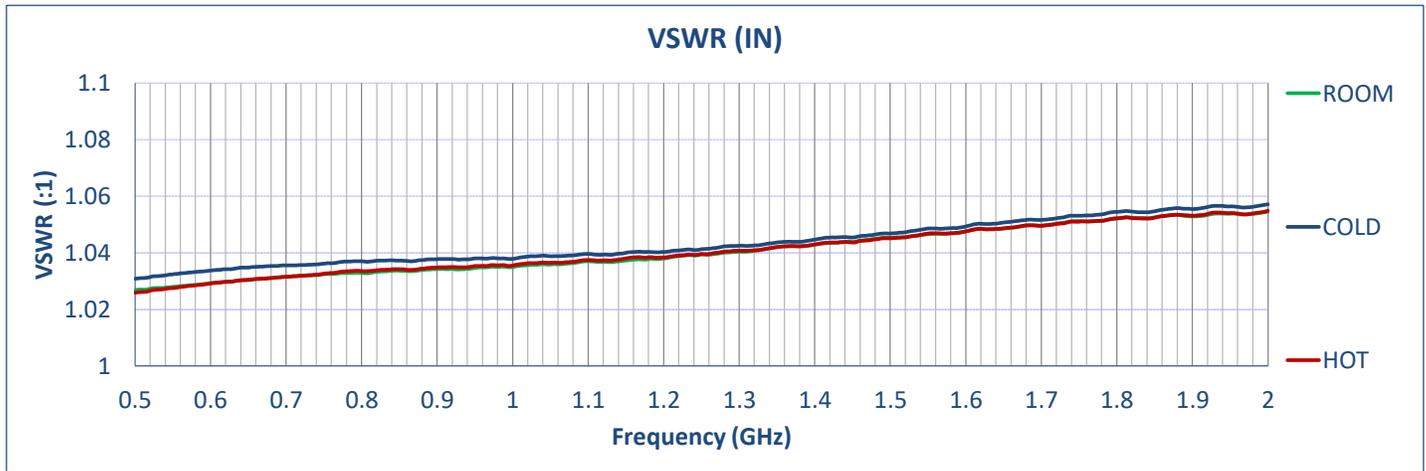
VSWR (IN TO 0°)



VSWR (IN TO 90°)



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