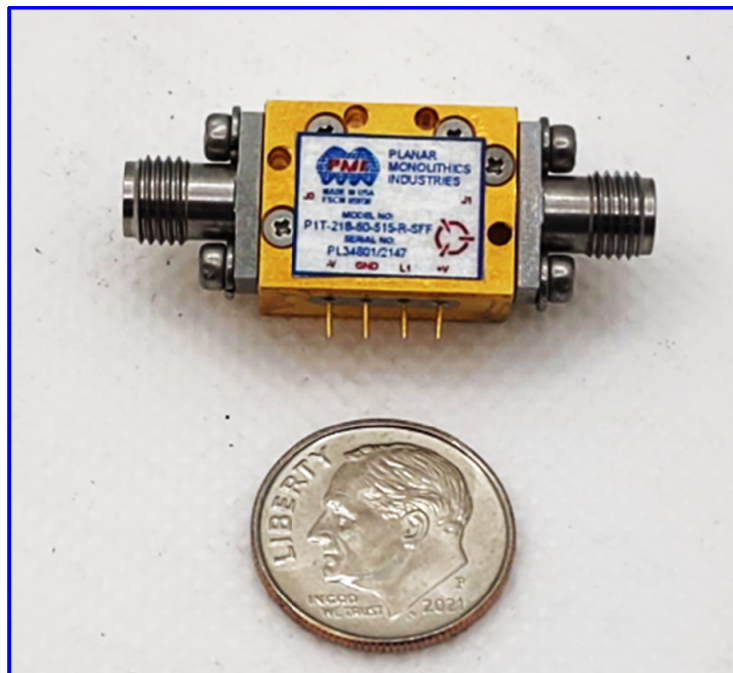




**TYPICAL CHARACTERISTICS
ON
P1T-218-60-515-R-SFF**

PMI MODEL NO. P1T-218-60-515-R-SFF IS A SINGLE POLE, SINGLE THROW, REFLECTIVE SWITCH OPERATING OVER THE FREQUENCY RANGE OF 2.0 TO 18.0 GHz. IT HAS A MINIMUM ISOLATION OF 60 dB AND A MAXIMUM INSERTION LOSS OF 1.8 dB. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS.



November 23, 2021

**Tested and Reported By:
John R.**



TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

OUTLINE DRAWING

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE	8/8/2021	

DESCRIPTION
PMI MODEL NO. P1T-218-60-515-R-SFF IS A SINGLE POLE, SINGLE THROW, REFLECTIVE SWITCH OPERATING OVER THE FREQUENCY RANGE OF 2.0 TO 18.0 GHz. IT HAS A MINIMUM ISOLATION OF 60 dB AND A MAXIMUM INSERTION LOSS OF 1.8 dB. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS.

SPECIFICATIONS

- FREQUENCY RANGE: 2.0 TO 18.0 GHz
- INTERFACE: TTL (1: OFF, 0: ON)
- ISOLATION: 60 dB MIN
- INSERTION LOSS: 1.8 dB MAX
- SWITCHING TIME: 30 ns MAX
- VSWR: 1.9:1 MAX
- IMPEDANCE: 50 OHMS
- RF INPUT POWER: 1W CW / 2W PEAK MAX
- SUPPLY VOLTAGES: +5 V
-15 V
- SUPPLY CURRENT: +65 mA MAX
-65 mA MAX
- CONNECTORS: SMA FEMALE
- FINISH: GOLD PLATED

MECHANICAL OUTLINE

ENVIRONMENTAL RATINGS

- TEMPERATURE: -30 °C TO +95 °C (OPERATING)
-55 °C TO +125 °C (STORAGE)
- VIBRATION: RANDOM: 20 - 500 Hz
SPECTRAL DENSITY: 0.01g²/Hz
RMS: 2.2 g
- MECHANICAL SHOCK: PEAK: 100 g
DURATION: 4 ms, HALFSINE
- HUMIDITY: 90%
- PRESSURE: OPERATION: 0.6 - 1.4 BAR
STORAGE: 0.3 - 1.4 BAR
VARIATION: ±0.5 BAR
- CORROSION: RESISTANT AGAINST SEAWATER
- MTBF: 200,000 h
- EMC: NO RADIATION

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

PLANAR MONOLITHICS INDUSTRIES, INC.
7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: (301)-662-5019, FAX: (301)-662-1731
WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

ALL DIMENSIONS ARE IN INCHES (mm)
TOLERANCES:
X.XX ±0.02
X.XXX ±0.010

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS		DATE		TITLE	
DRAWN	<i>MSJ</i>		8/8/2021	OUTLINE P1T-218-60-515-R-SFF	
REWORK		SIZE	FORM NO.	DWG NO.	REV
		A	05XQ0	27042480	A1
ISSUED		SCALE	N:S	SHEET	1 OF 1

7311-F Grove Road, Frederick, MD 21704 USA Phone: (301) 662-5019 Fax: (301) 662-1731
Email: sales@pmi-rf.com



**TYPICAL CHARACTERISTICS
ON
P1T-218-60-515-R-SFF**

TEST DATA SUMMARY @ +25°C

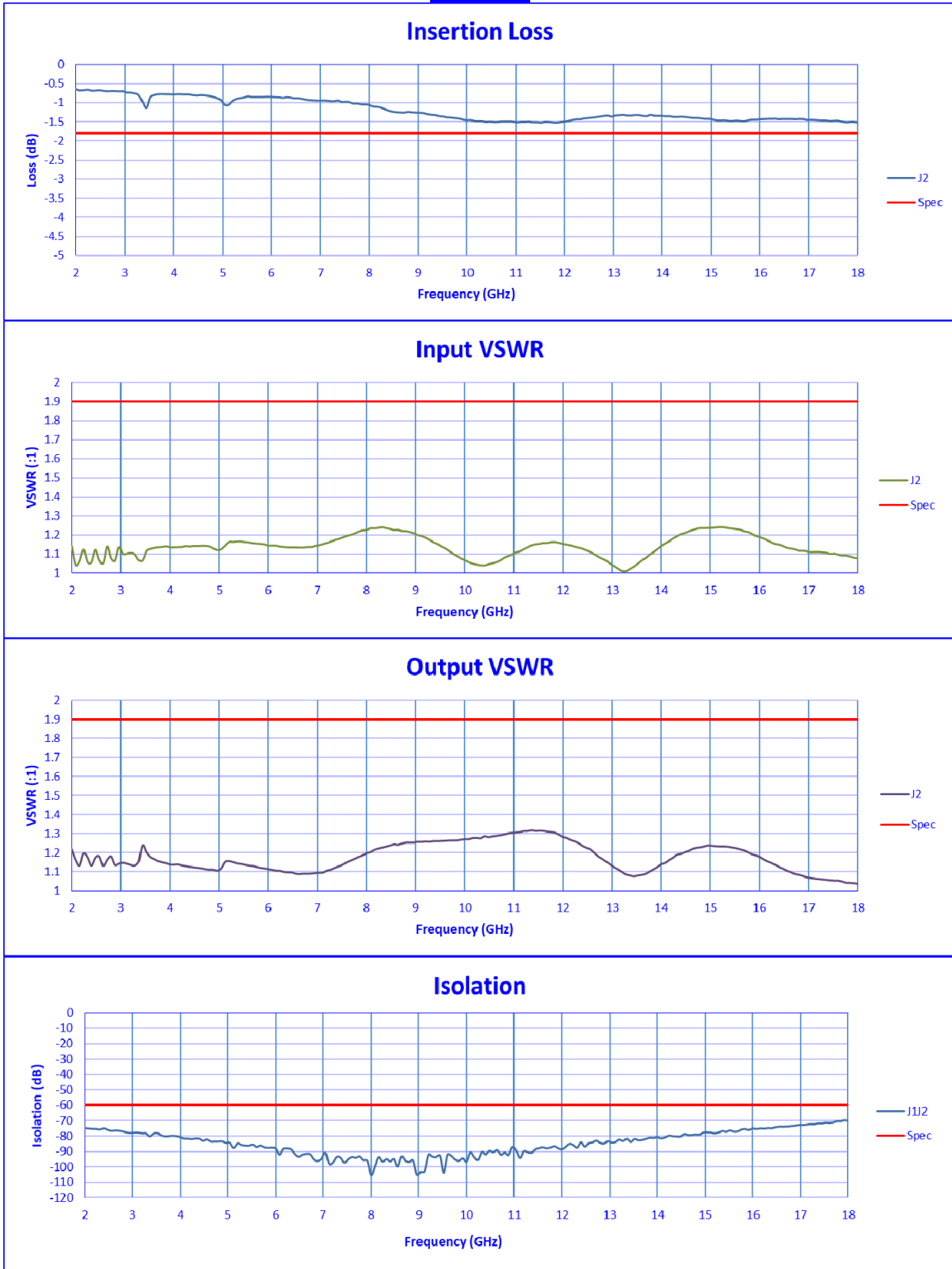
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	2 GHz to 18 GHz	2 GHz to 18 GHz	
2	Isolation	60 dB Min.	69.6 dB	
3	Insertion Loss	1.8 dB Max.	1.52 dB	
4	VSWR: In/Out	1.9:1 Max.	1.24:1 In 1.32:1 Out	
5	Input Power	20 dBm CW Max.	20 dBm CW	
6	DC SUPPLY	+5VDC @ 65 mA Max. -15VDC @ 65 mA Max.	+5VDC @ 21 mA -15VDC @ 25 mA	
7	Control Signal	TTL LOGIC "0" : Insertion Loss "1" : Isolation E1 : J1-J2	PASS	

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TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

+25°C





**TYPICAL CHARACTERISTICS
ON
P1T-218-60-515-R-SFF**

TEST DATA SUMMARY @ -30°C

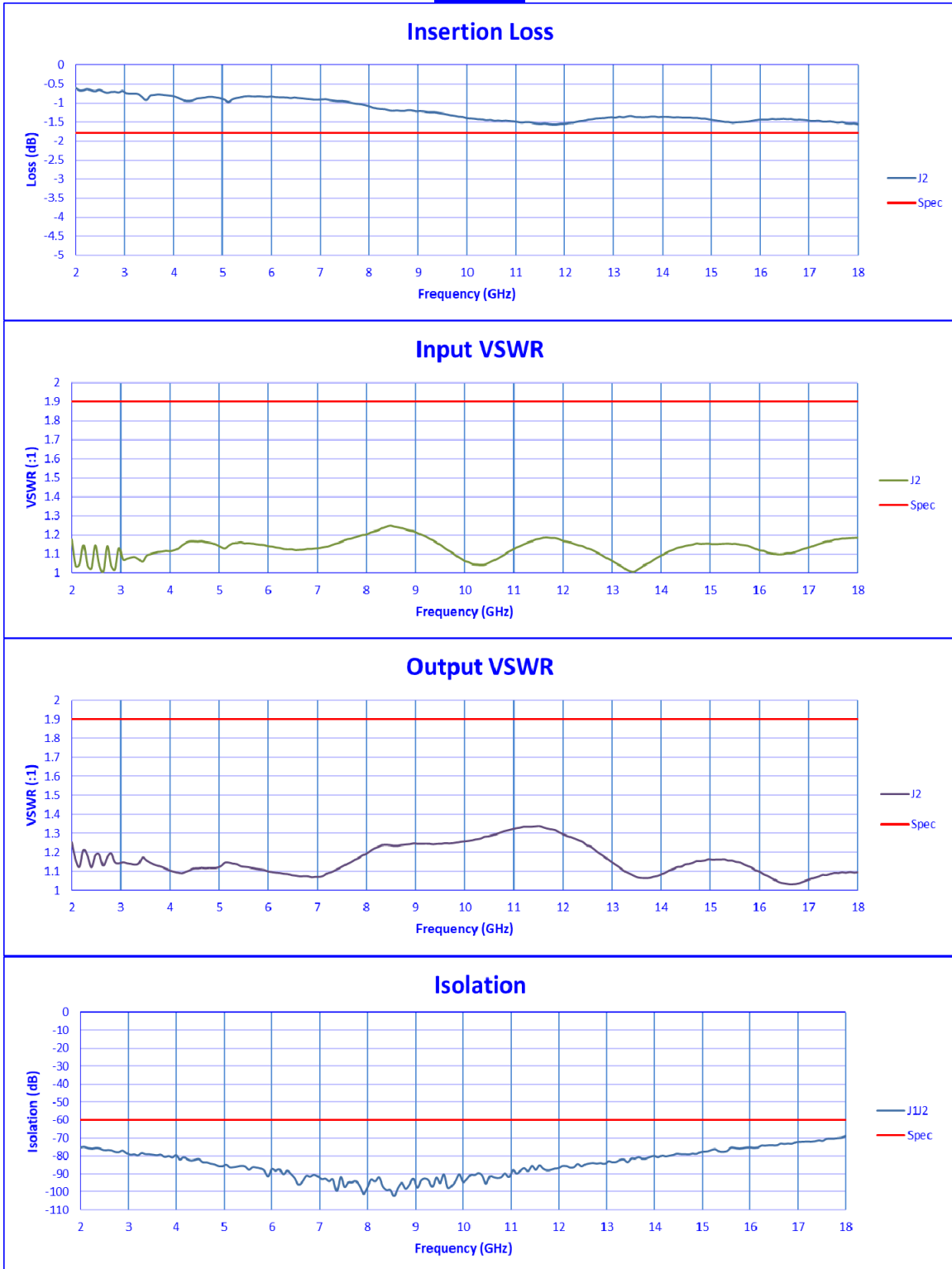
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	2 GHz to 18 GHz	2 GHz to 18 GHz	
2	Isolation	60 dB Min.	69.1 dB	
3	Insertion Loss	1.8 dB Max.	1.58 dB	
4	VSWR: In/Out	1.9:1 Max.	1.25:1 In 1.34:1 Out	
5	Input Power	20 dBm CW Max.	20 dBm CW	
6	DC SUPPLY	+5VDC @ 65 mA Max. -15VDC @ 65 mA Max.	+5VDC @ 21 mA -15VDC @ 25 mA	
7	Control Signal	TTL LOGIC "0" : Insertion Loss "1" : Isolation E1 : J1-J2	PASS	

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Email: sales@pmi-rf.com



TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

-30°C





**TYPICAL CHARACTERISTICS
ON
P1T-218-60-515-R-SFF**

TEST DATA SUMMARY @ +95°C

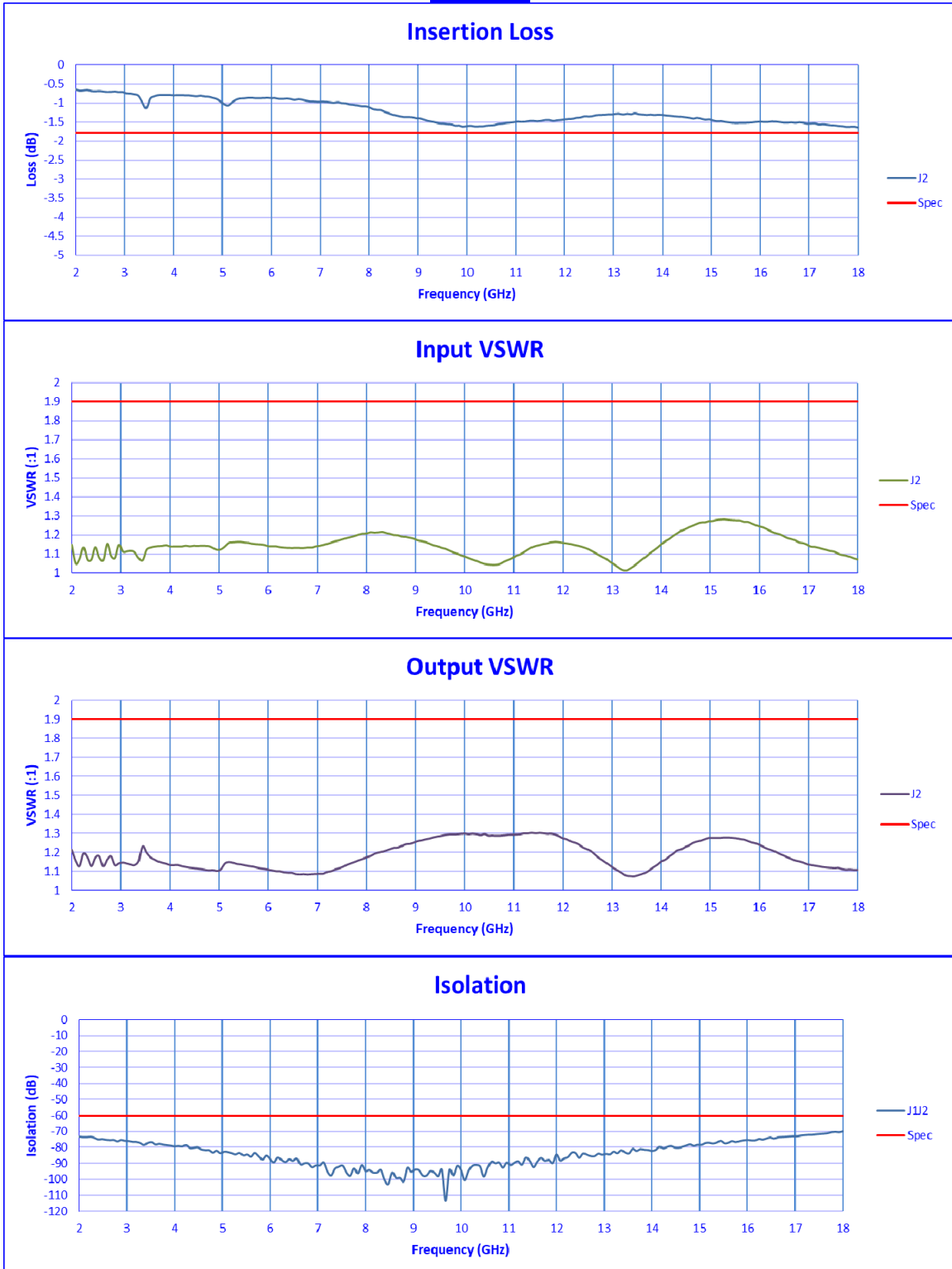
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	2 GHz to 18 GHz	2 GHz to 18 GHz	
2	Isolation	60 dB Min.	70 dB	
3	Insertion Loss	1.8 dB Max.	1.64 dB	
4	VSWR: In/Out	1.9:1 Max.	1.28:1 In 1.3:1 Out	
5	Input Power	20 dBm CW Max.	20 dBm CW	
6	DC SUPPLY	+5VDC @ 65 mA Max. -15VDC @ 65 mA Max.	+5VDC @ 21 mA -15VDC @ 25 mA	
7	Control Signal	TTL LOGIC "0" : Insertion Loss "1" : Isolation E1 : J1-J2	PASS	

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TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

+95°C

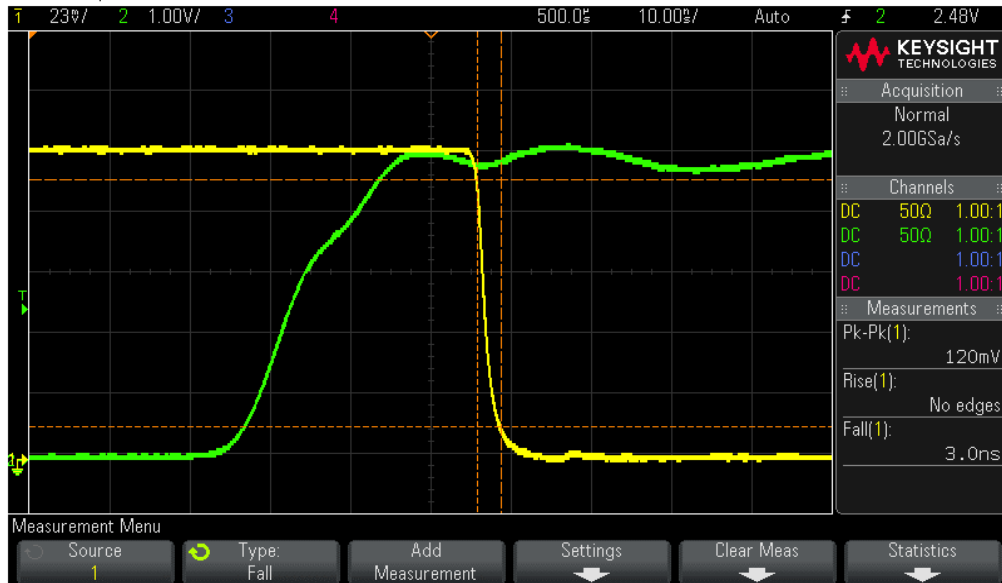




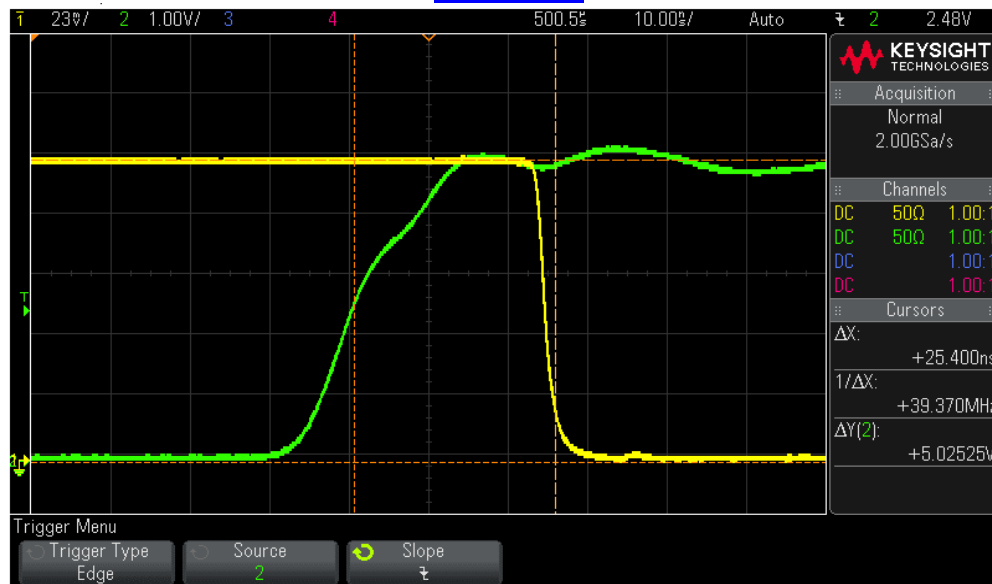
TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

SWITCHING SPEED PLOTS

FALL TIME



OFF TIME

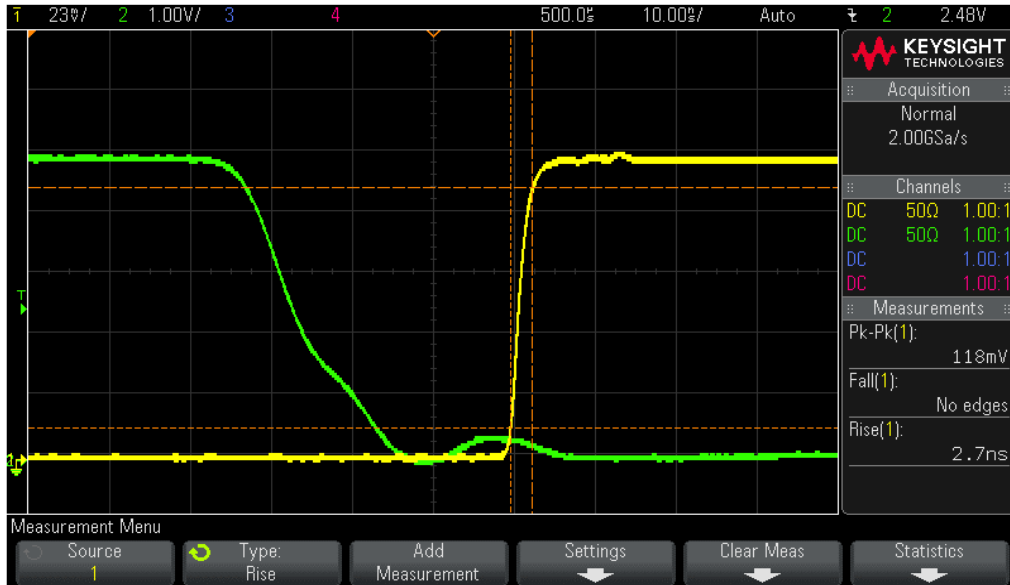


Yellow Trace = TTL Control
Green Trace = RF From Crystal Detector

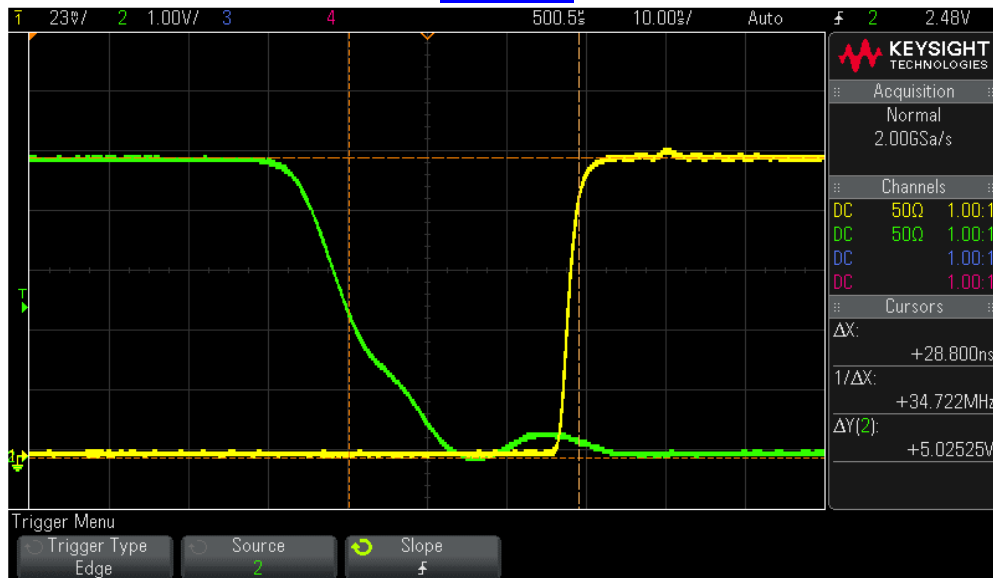


TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

RISE TIME



ON TIME

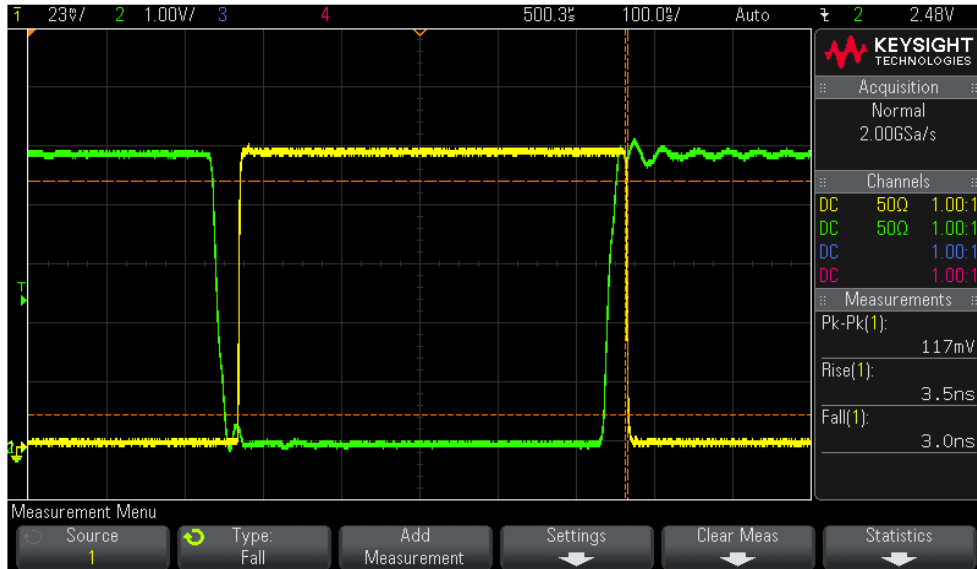


Yellow Trace = TTL Control
Green Trace = RF From Crystal Detector

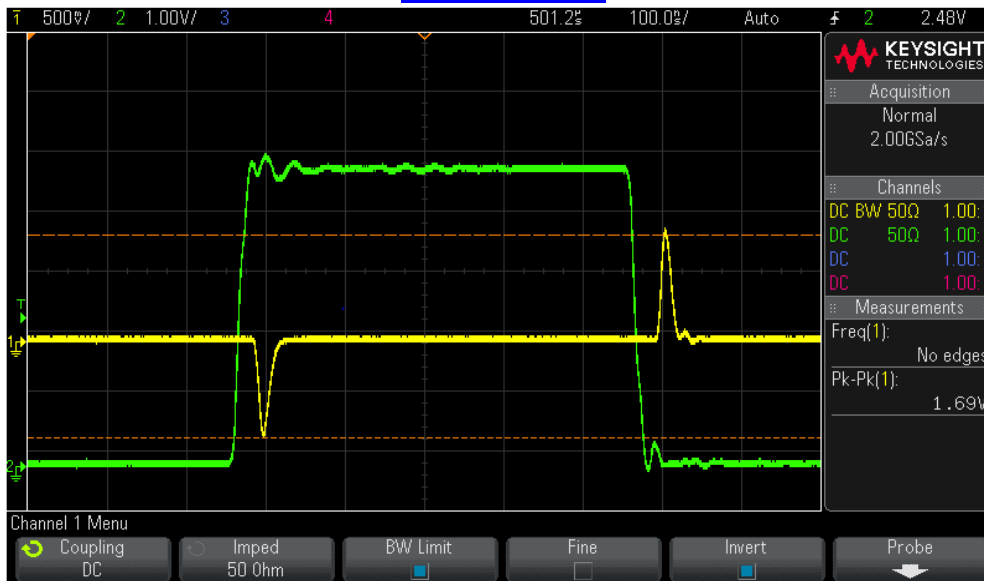


TYPICAL CHARACTERISTICS ON P1T-218-60-515-R-SFF

PULSE WIDTH



TRANSIENTS



Yellow Trace = TTL Control
Green Trace = RF From Crystal Detector



**TYPICAL CHARACTERISTICS
ON
P1T-218-60-515-R-SFF**

