



3.5mm General Purpose Calibration Kit Including Short Circuit, Open Circuit, Load and Thru Components Operating From DC to 8.5 GHz

TECHNICAL DATA SHEET

PE5CK1001

Pasternack's PE5CK1001 Calibration Kit offers excellent performance characteristics that is specially designed for the fine-tuning and calibration of sensitive test equipment in engineering labs, production environments, and quality testing facilities. All of our calibration kits are built to withstand years of rigorous use and provide accurate RF equipment calibration for the life of the product. Pasternack's broad portfolio of test and measurement components offer users a variety of options that are technically and economically suitable for a broad spectrum of RF applications and environments.

As a leading solutions provider of RF calibration instruments and compatible RF components, you can rely on Pasternack to have all of the T&M products you need in-stock and available to ship same-day.

Features

- Functional from DC to 8.5 GHz
- Standard kit includes (8) 3.5mm short-open-load-thru (SOLT) components
- Suitable for many 50 Ohm network analyzers including, but not limited to:
- Agilent / HP (8711/8712, 8713/8714, 8753, E5061A, E5062A, E5061B, E5071C, E5072A)
- Anritsu / Advantest (MS2028S, MS2026S, MS2025S, MS2024S, MS2038C, MS2036C, MS2035B, MS2034B, MS4640B, R3755A, R3760)
- Copper Mountain (5048, 804, 304, 818, 814)
- Deviser (NA7300A, NA7100A)
- EI41(AV3656A)
- OuFu (OF7631A, OF7633A)
- PNA (PNA3766, PNA3767)
- Rohde & Schwarz (ZVL, ZVC, ZVB)
- Tianda (TD3616C, TD3617E, TD3618C, TD3619C)

Applications

- VNA, Full 2-Port CAL
- VNA, Thru CAL
- VNA, Substitution CAL Method
- Test & Measurement
- Lab Equipment Accessories
- Engineering Test and Evaluation
- General Purpose Test and Evaluation

Configuration

Connector	3.5mm
Impedance	50 Ohms
Frequency Range	DC to 8.5 GHz

PE5CK1001 Standard Kit Specifications

Part Number	Frequency Range	Connector Type	Connector Gender	Type	Impedance
PE5SC2002	DC - 8500 MHz	3.5mm	Female	Open	50 Ohm
PE5SC2003	DC - 8500 MHz	3.5mm	Male	Open	50 Ohm
PE5SC1002	DC - 8500 MHz	3.5mm	Female	Short	50 Ohm
PE5SC1003	DC - 8500 MHz	3.5mm	Male	Short	50 Ohm
PE5TR1002	DC - 8500 MHz	3.5mm	Female	Load	50 Ohm
PE5TR1003	DC - 8500 MHz	3.5mm	Male	Load	50 Ohm
PE5SC3003	DC - 8500 MHz	3.5mm	Female to Female	Thru	50 Ohm
PE5SC3004	DC - 8500 MHz	3.5mm	Male to Male	Thru	50 Ohm

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3.5mm General Purpose Calibration Kit Including Short Circuit, Open Circuit, Load and Thru Components Operating From DC to 8.5 GHz PE5CK1001](#)



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PE5SC2002 3.5mm Female Open Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Phase, DC-3000 MHz	0.8	Nominal	0.8	Degrees
Phase, 3001 - 8500 MHz	1.2	Nominal	1.2	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze	
Connector	50 Ohm 3.5mm Female	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.473 [12] ϕ , 0.733 [18.6] L	Inch [mm]
Net Weight	10	g

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PE5SC2003 3.5mm Male Open Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Phase, DC-3000 MHz	0.8	Nominal	0.8	Degrees
Phase, 3001 - 8500 MHz	1.2	Nominal	1.2	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze & Stainless Steel	
Connector	50 Ohm 3.5mm Male	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.497 [12.6] ϕ , 0.776 [19.7] L	Inch [mm]
Net Weight	9.8	g

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PE5SC1002 3.5mm Female Short Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Phase, DC-3000 MHz	0.8	Nominal	0.8	Degrees
Phase, 3001 - 8500 MHz	1	Nominal	1	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze	
Connector	50 Ohm 3.5mm Female	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.497 [12.6] ϕ , 0.918 [23.3] L	Inch [mm]
Net Weight	13.6	g

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PE5SC1003 3.5mm Male Short Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Phase, DC-3000 MHz	0.8	Nominal	0.8	Degrees
Phase, 3001 - 8500 MHz	1	Nominal	1	Degrees

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze & Stainless Steel	
Connector	50 Ohm 3.5mm Male	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.497 [12.6] ϕ , 0.965 [24.5] L	Inch [mm]
Net Weight	13.6	g

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PE5TR1002 3.5mm Female Load Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Return Loss, DC-3000 MHz	40	42		dB
Return Loss, 3001 - 8500 MHz	36	38		dB

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze	
Connector	50 Ohm 3.5mm Female	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.473 [12] ϕ , 1.004 [25.5] L	Inch [mm]
Net Weight	13	g

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PE5TR1003 3.5mm Male Load Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Return Loss, DC-3000 MHz	40	42		dB
Return Loss, 3001 - 8500 MHz	36	38		dB

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze & Stainless Steel	
Connector	50 Ohm 3.5mm Male	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.473 [12] ϕ , 1.052 [26.7] L	Inch [mm]
Net Weight	14	g

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PE5SC3003 3.5mm Female Through Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Insertion Loss, DC - 8500 MHz		0.05	0.2	dB
Return Loss, DC - 8500 MHz	30	35		dB

Mechanical Specifications

Item	Description	Units
Housing	Phosphor Bronze	
Connector	50 Ohm 3.5mm Female (Both Ends)	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.355 [9] ϕ , 0.662 [16.8] L	Inch [mm]
Net Weight	2.4	g

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PE5SC3004 3.5mm Male Through Specifications



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC - 8500			MHz
Impedance	50			Ohm
Insertion Loss, DC - 8500 MHz		0.05	0.2	dB
Return Loss, DC - 8500 MHz	30	35		dB

Mechanical Specifications

Item	Description	Units
Housing	Stainless Steel	
Connector	50 Ohm 3.5mm Male (Both Ends)	
Connector Screw Thread	1/4"-36 UNS	Inch
Dimensions	0.355 [9] ϕ , 0.808 [20.5] L	Inch [mm]
Net Weight	5.5	g

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General Instructions and Usage Notes

#	Notes
1	Keep provided protective blue caps installed when not in use.
2	Store in climate controlled environment.
3	Always keep connectors clean.
4	Avoid touching the connector interface.
5	Use caution when handling.
6	For female components, do not insert male pin greater than 0.037" [.94 mm]. Failure to comply will result in damage to the female connector.
7	When mating, always ensure that the components to be interconnected remain in a fixed position while rotating only the coupling nut slowly to mate the connectors.
8	When de-mating, always ensure that the interconnected components remain in a fixed position while rotating only the coupling nut slowly to de-mate the connectors.
9	Visually inspect the connector threads prior to use. If needed, clean the center conductor pin and outer conductor with alcohol to remove any debris that may be present. Be sure to apply the alcohol in a circular motion with a lint-free cloth or applicator.
10	Use at room temperature.
11	Torque wrench provided is intended for 3.5mm connector types and is calibrated to 8 in-lbs.

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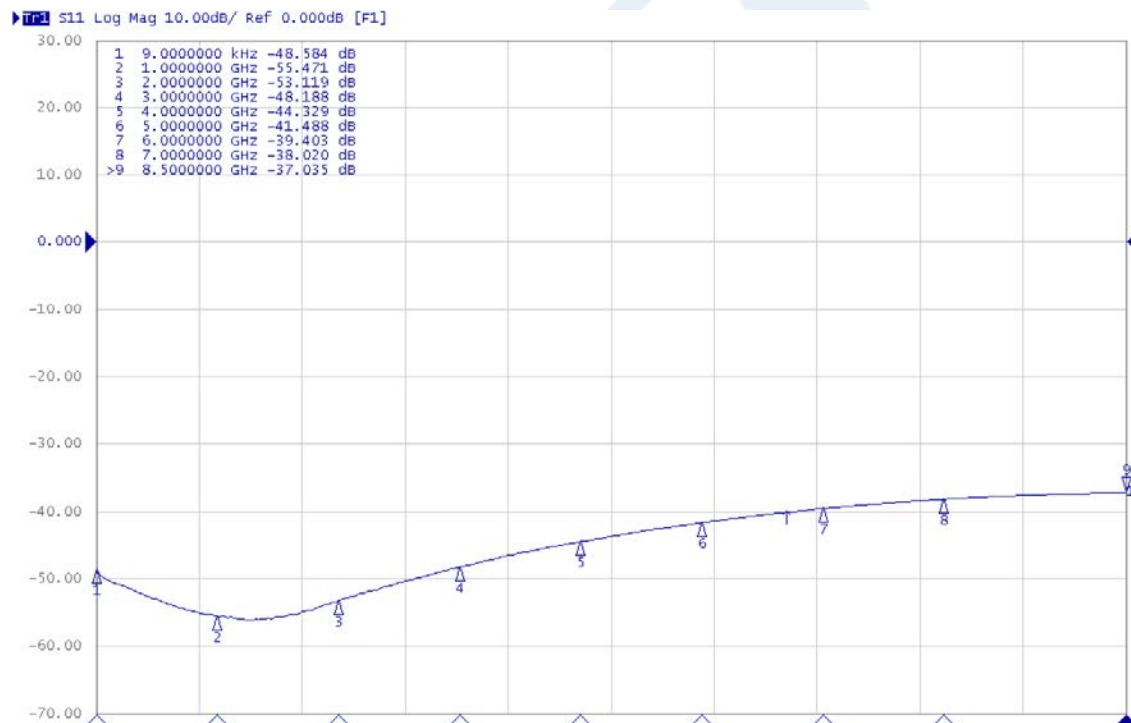
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Typical Performance Data

PE5TR1002 Return Loss
Span: 8500 MHz



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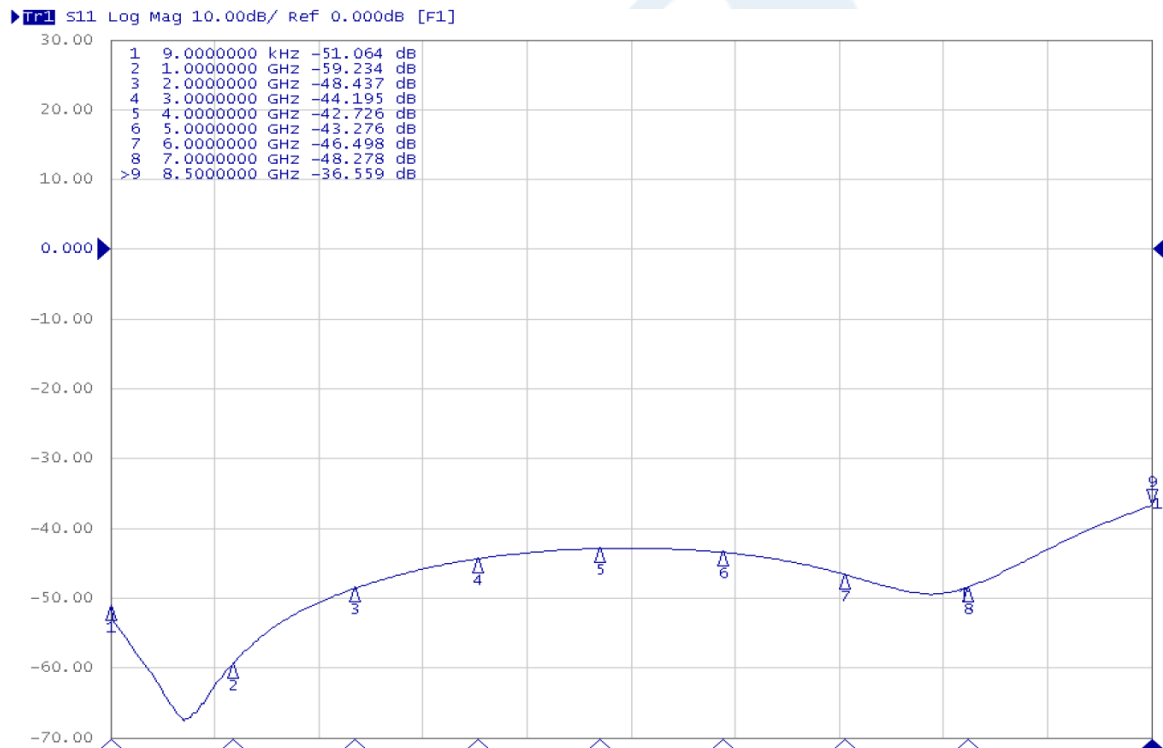


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PE5TR1003 Return Loss
Span: 8500 MHz



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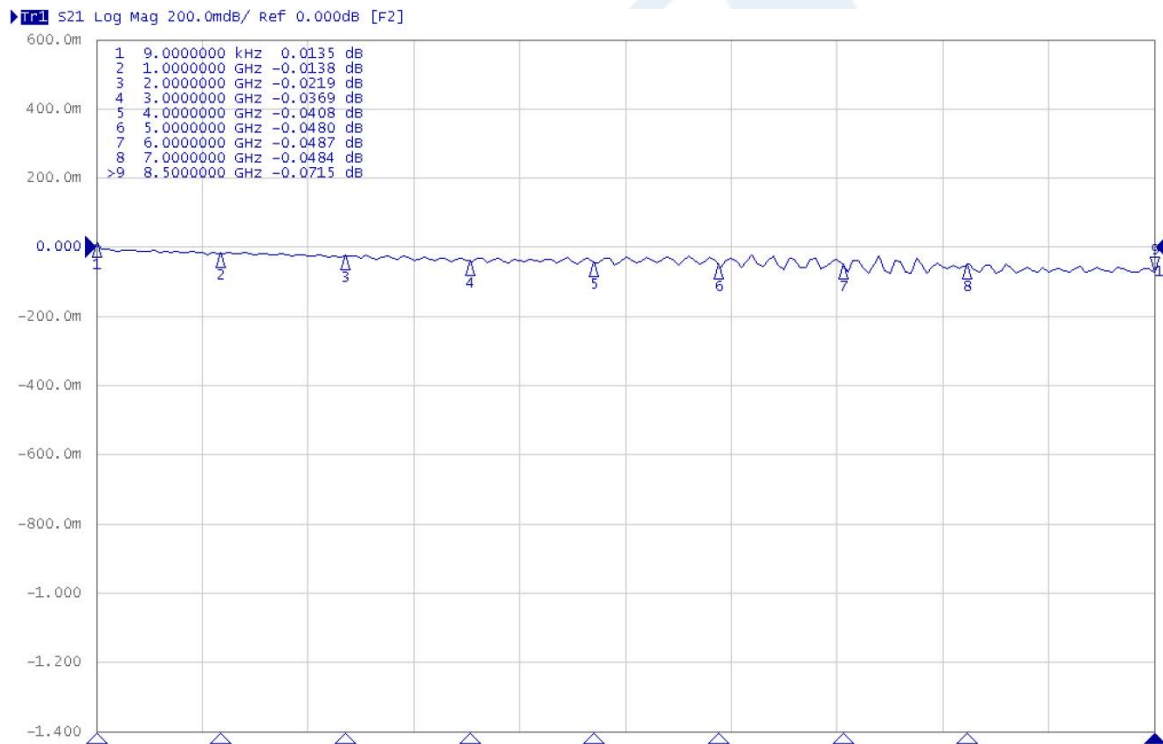


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PE5SC3003 Insertion Loss
Span: 8500 MHz



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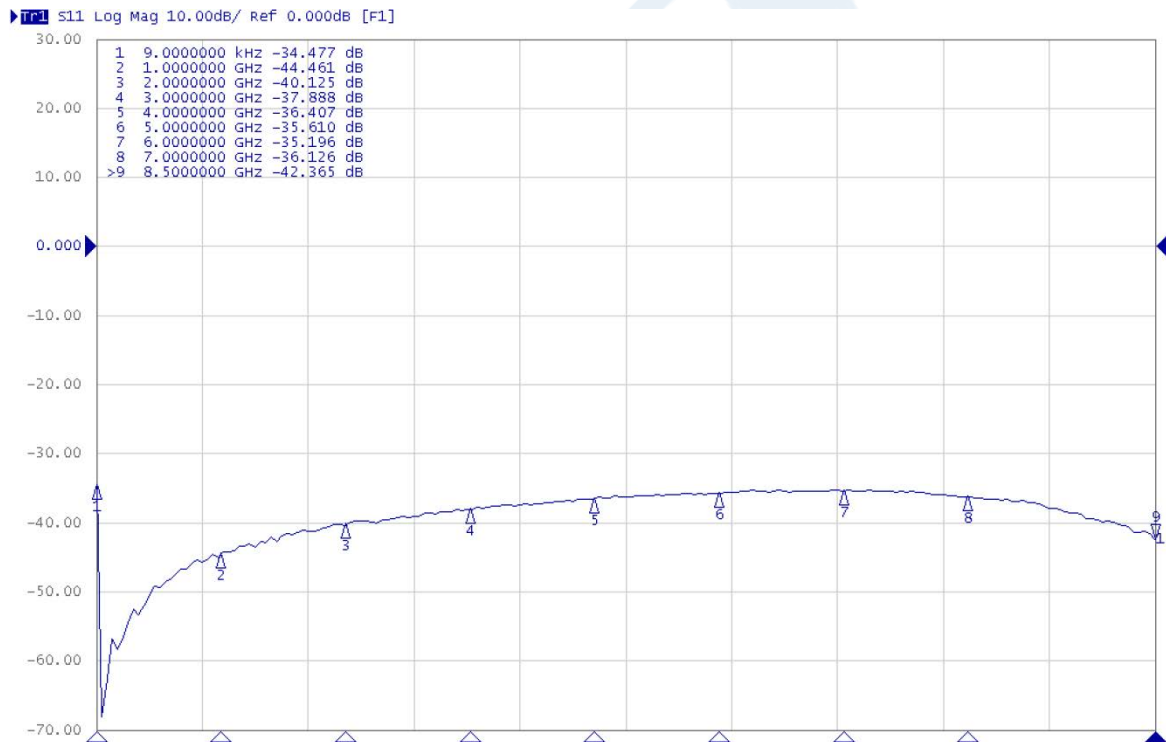


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PE5SC3003 Return Loss
Span: 8500 MHz



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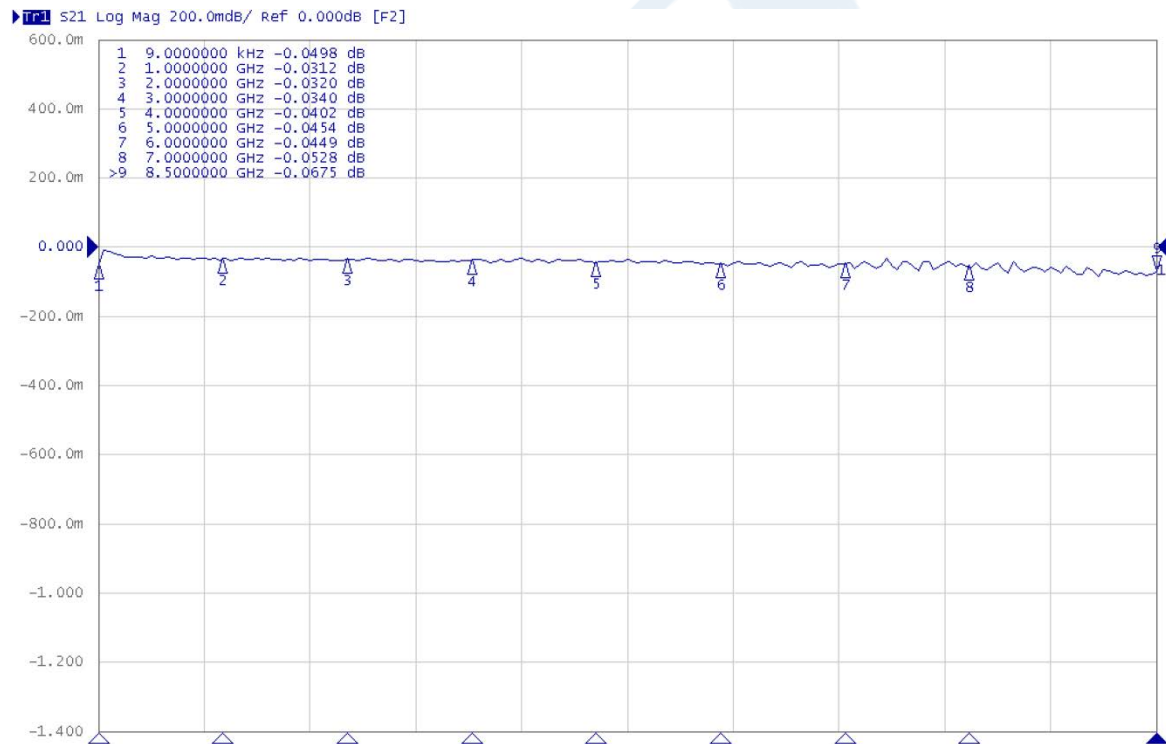


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PE5SC3004 Insertion Loss
Span: 8500 MHz



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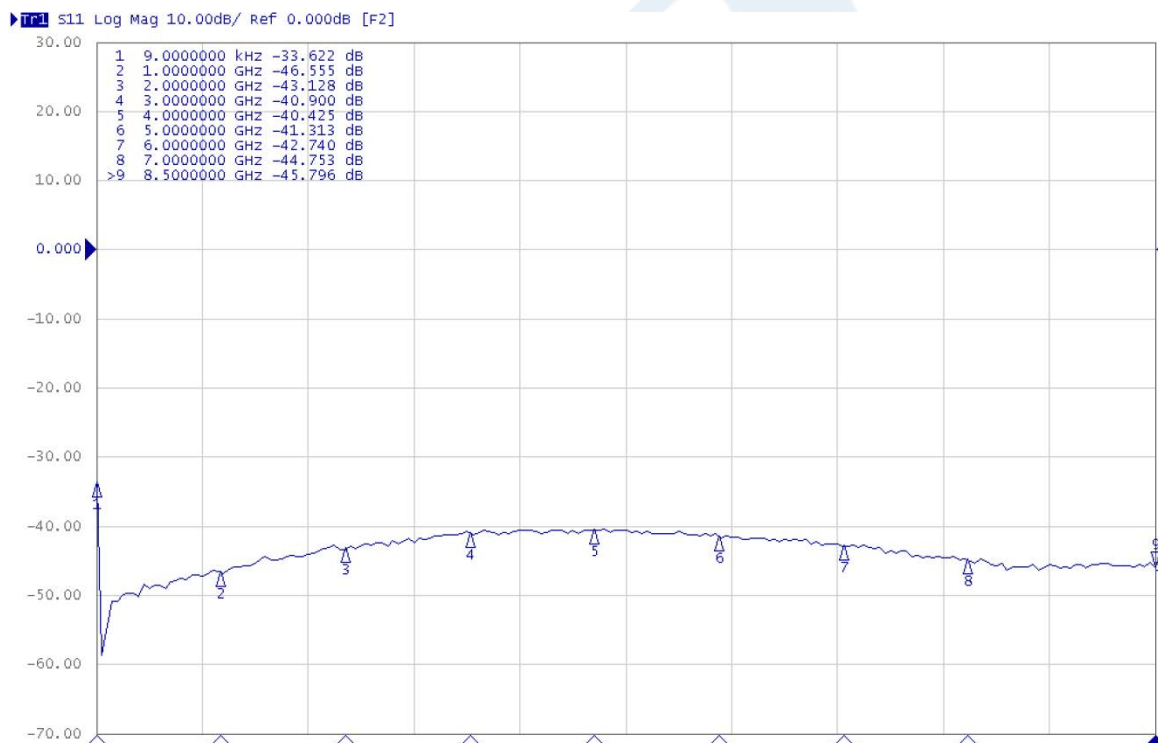


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PE5SC3004 Return Loss
Span: 8500 MHz



Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant
REACH Compliant

06/16/2014

Plotted and Other Data

Notes:

- Values at +25 °C, sea level

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