

SMA 8 Bit Programmable Phase Shifter 360 Deg Phase Shift 256 Steps From 8.5 GHz to 11 GHz

SDPS-0811-360-SMA is an 8 Bit Digitally Controlled Phase Shifter with 0° to 360° Phase Range and a resolution as fine as 1.41°, with a switching speed of 100 nsec typical over the Operating Frequency Range from 8.5 GHz to 11 GHz. The module is offered in a slim line package measuring only 0.5" Height. The Input/Output RF Connectors are SMA Female. The Control Connector is a 15 PIN Micro D Connector.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	8.5		11	GHz
Phase Shift			360	Degrees
Phase LSB Step		1.41		Degrees
Input VSWR		1.8:1	2:1	
Output VSWR		1.8:1	2:1	
Insertion Loss		10	12	dB
Phase Accuracy		±9	±12	Degrees
PM/AM Error		±1	±2	dB
Phase Flatness		±8	±12	Degrees
Switching Speed		100	500	ns
Spurious			-130	dBm
Voltage Supply 1			15	Vdc
Current Supply 1			250	mA
Voltage Supply 2	-15			Vdc
Current Supply 2			20	mA
Input Power, CW			0.02	Watts
Input Power, CW (Survival)			+30	dBm

Mechanical Specifications

Size	
Length	1.6 in [40.64 mm]
Width/Diameter	1.75 in [44.45 mm]
Height	0.5 in [12.7 mm]
Weight	0.142 lbs [64.41 g]

Configuration

Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to 85 deg C
Storage Range	-65 to 150 deg C

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



Features:

- 8 Bit Digital Controlled Phase Shifter
- 8.5 GHz to 11 GHz Frequency Range
- 360 Deg Phase Shift
- 100 ns Typ Switching Speed
- +13 dBm Max Input Power
- Insertion Loss 10 dB Typ
- SMA Female RF Connectors
- 15 PIN Micro D Control Connector

Applications:

- Electronic Warfare
- Test & Measurement
- Military & Space
- Radar
- Military Communications Systems

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Temperature Cycle

MIL-STD-202F, METHOD 107 COND. A

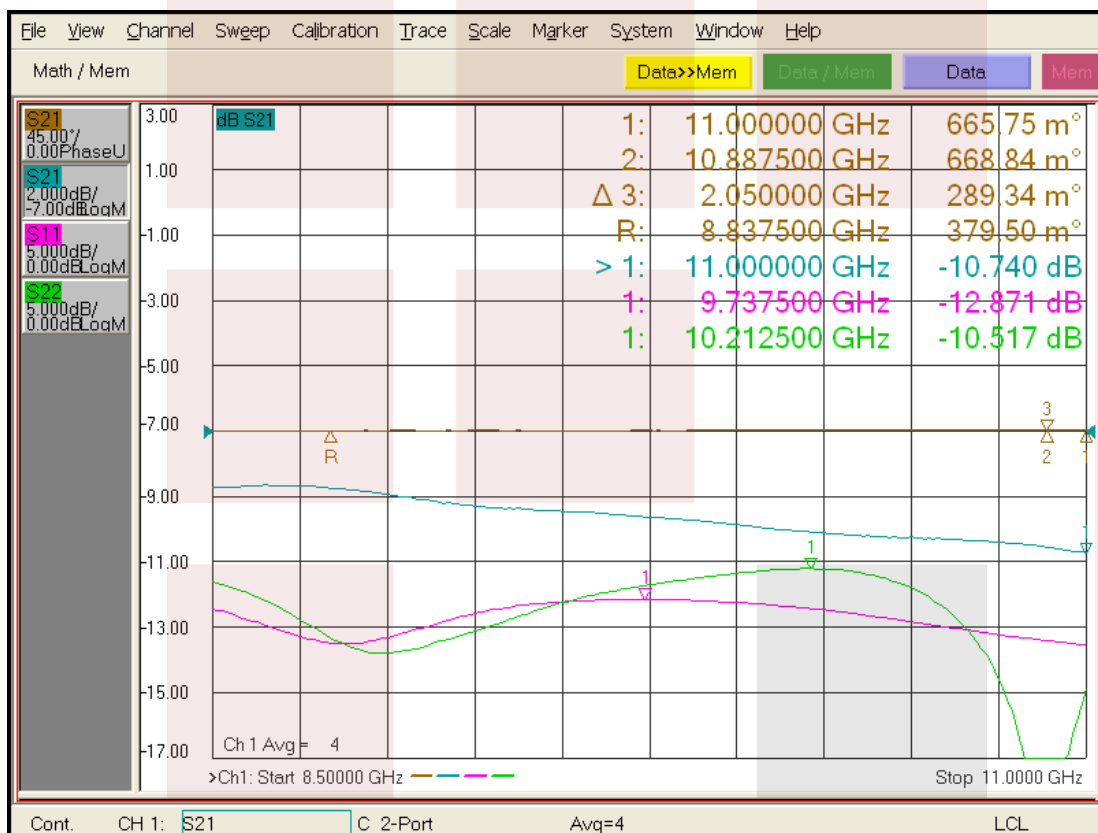
Compliance Certifications (visit www.FairviewMicrowave.com for current document)
REACH Compliant 12/17/2015

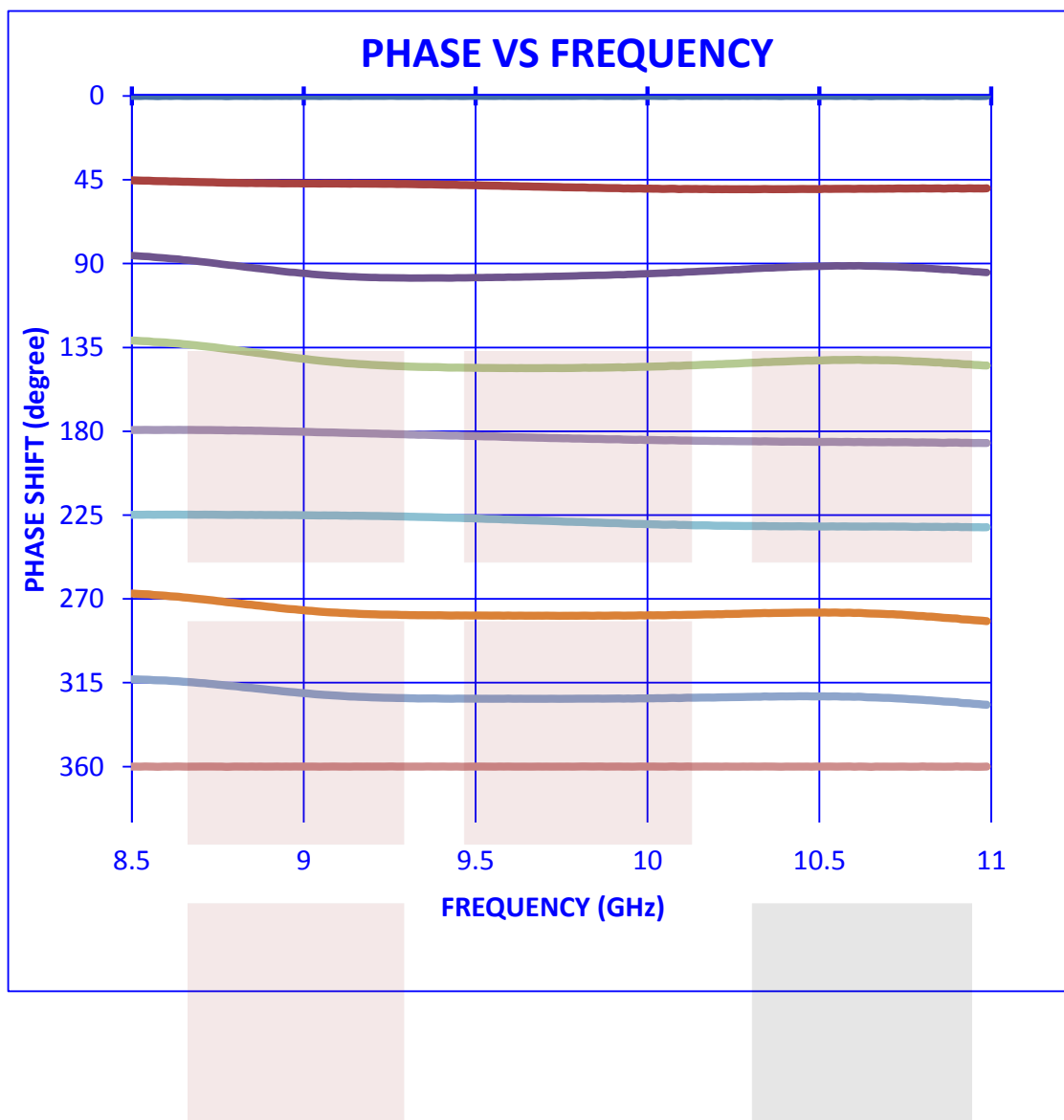
Plotted and Other Data

Notes:

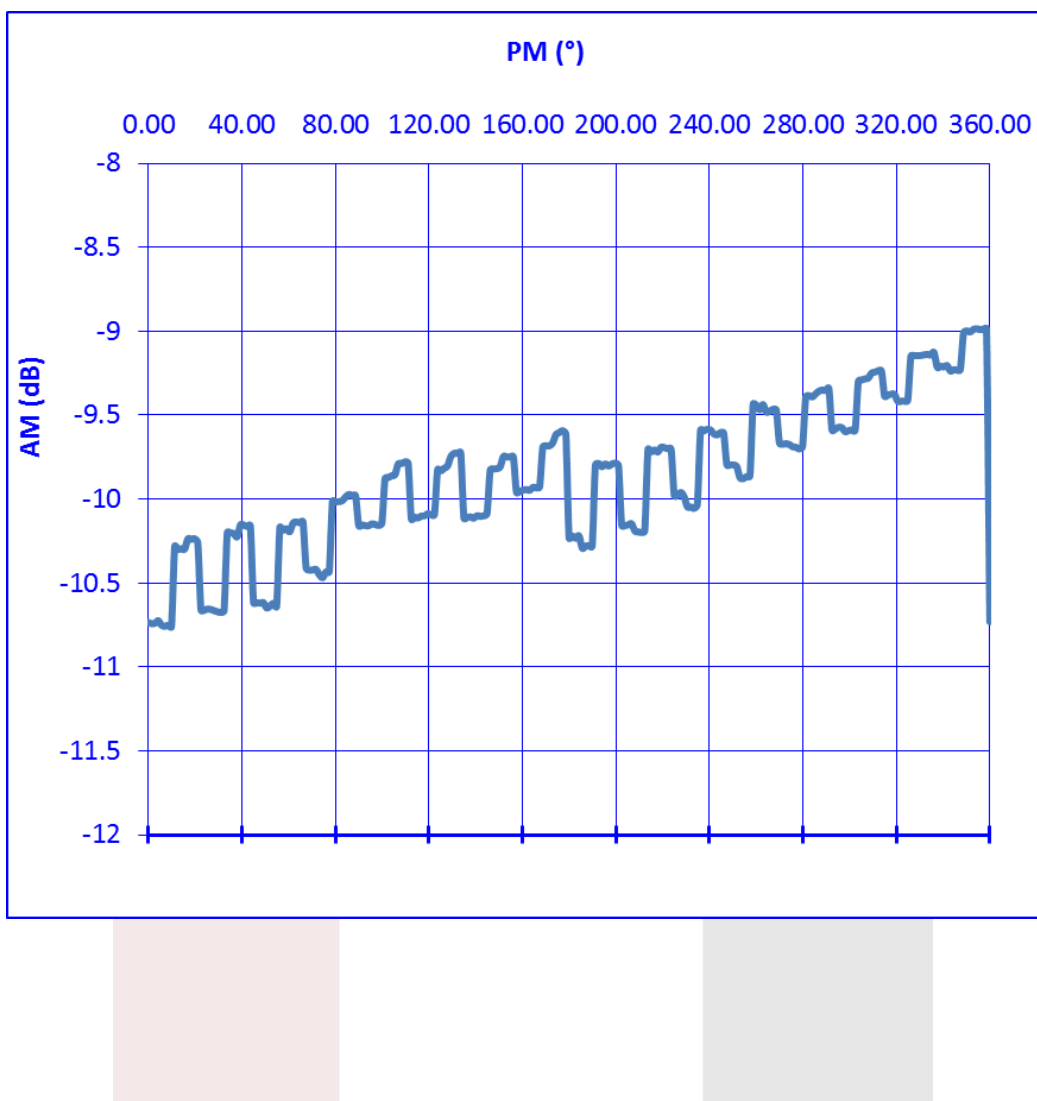
Typical Performance Data

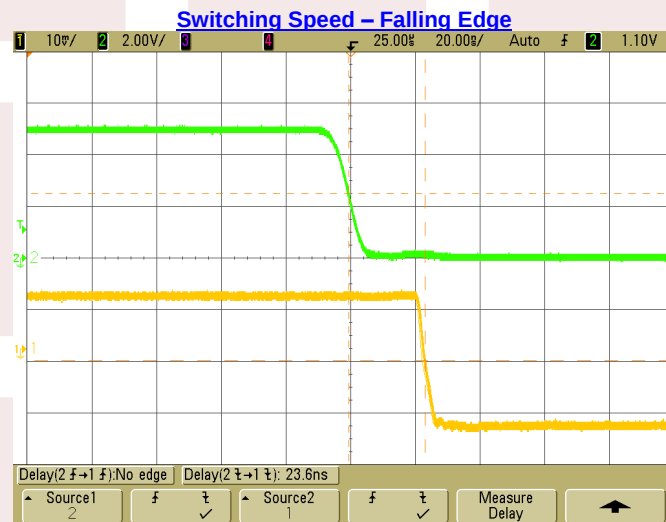
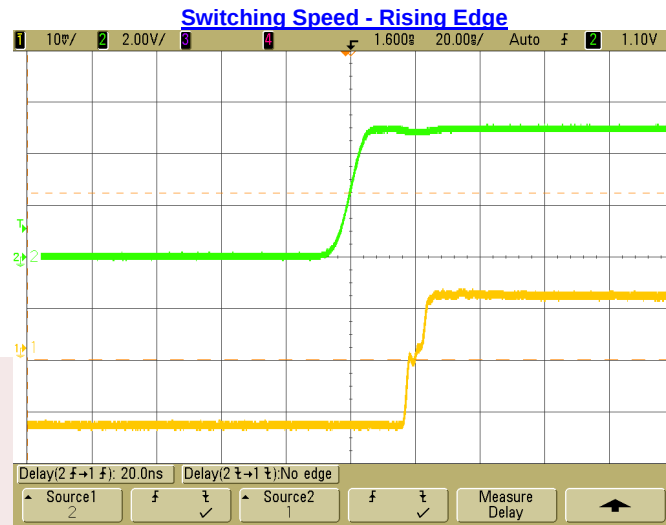
Insertion Loss, Phase, and Return Loss 0 Degrees





PM/AM Flatness





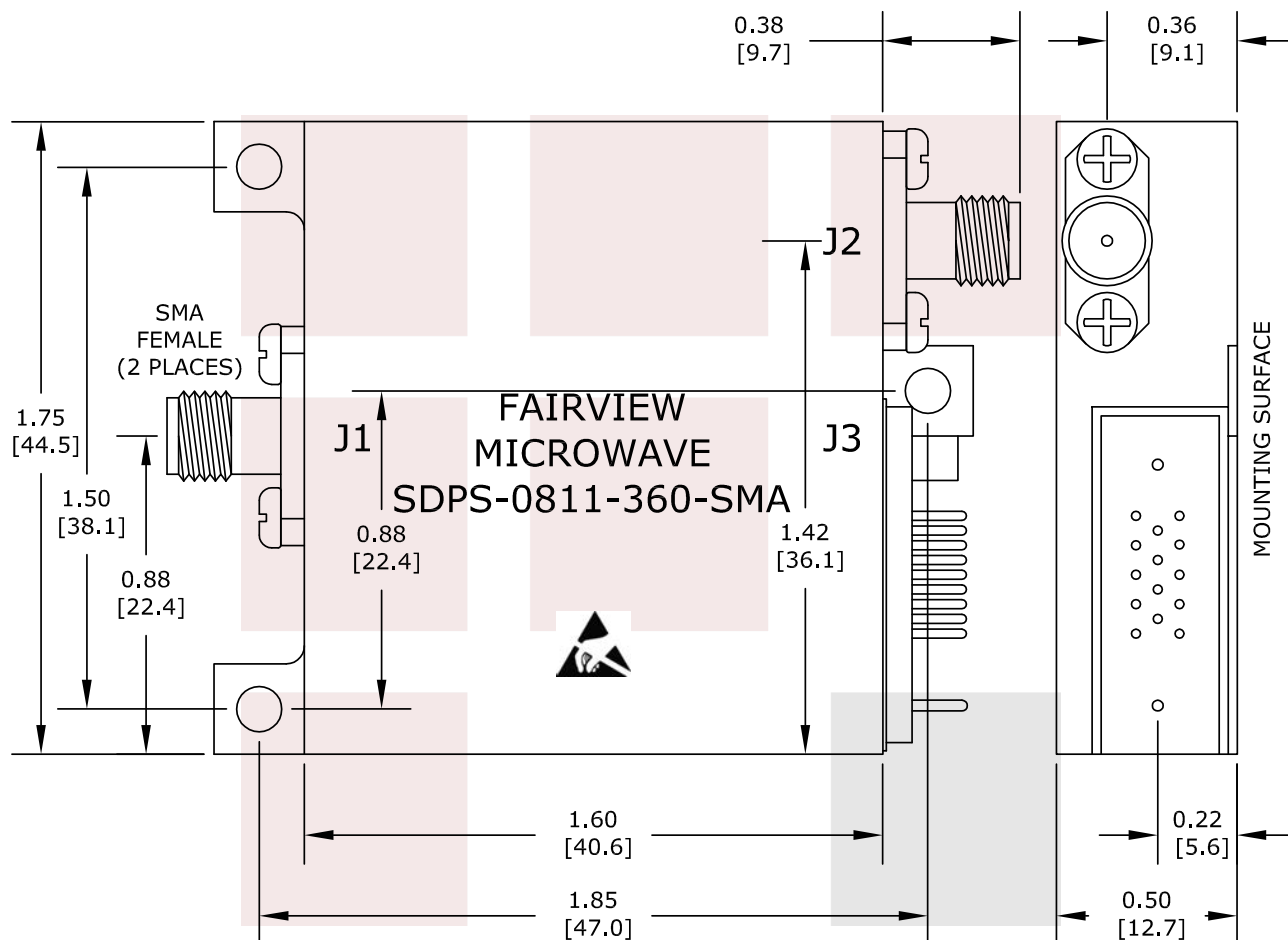
Green Trace: Waveform Generator TTL Levels
Yellow Trace: RF Output through mixer IF Port

SMA 8 Bit Programmable Phase Shifter 360 Deg Phase Shift 256 Steps From 8.5 GHz to 11 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA 8 Bit Programmable Phase Shifter 360 Deg Phase Shift 256 Steps From 8.5 GHz to 11 GHz SDPS-0811-360-SMA](https://www.fairviewmicrowave.com/sma-8-bit-programmable-phase-shifter-8.5-11-ghz-sdps-0811-360-sma-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-8-bit-programmable-phase-shifter-8.5-11-ghz-sdps-0811-360-sma-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



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TITLE SDPS-0811-360-SMA 8 Bit 85 GHz to 110 GHz Digitally Controlled Phase Shifter 10 dB IL 360° Phase Shift 500 ns Switch Speed SMA		DWG NO SDPS-0811-360-SMA		CAGE CODE 3FKR5	
CAD FILE	032714	SHEET	SCALE	N/A	SIZE A 150