BROADBAND PULSE INVERTER (1 MHz to 26.5 GHz) INV-0026

Features

- 1 MHz to 26.5 GHz Pulse Inverter
- Fastest Rise and Fall Time
- Low Insertion Loss
- Matched 50 Ohm Impedance on Input and Output Ports
- INV-0026.S2P

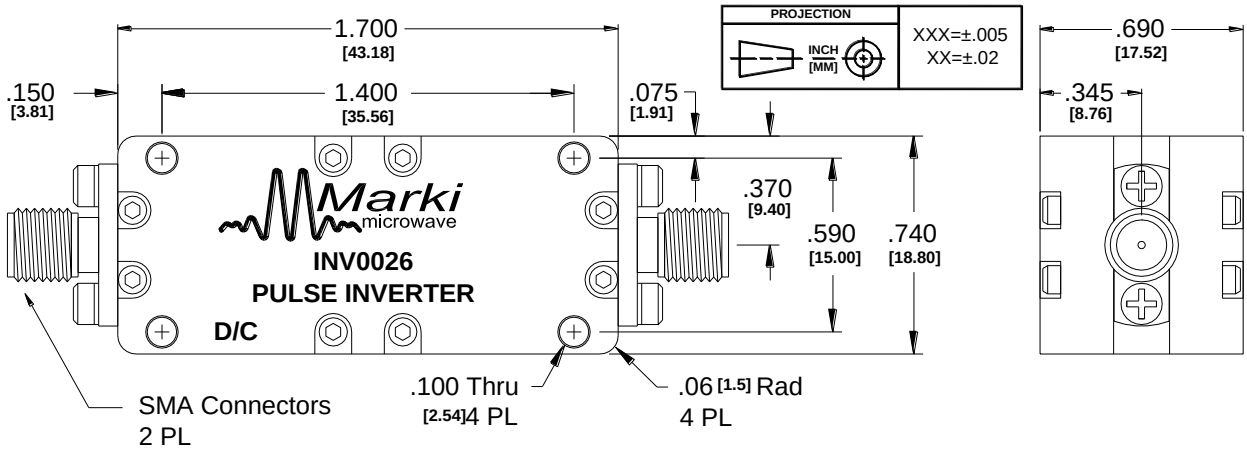
Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter	Frequency Range	Min	Typ	Max
Nominal Phase Shift (Degrees) [1]			180	
Insertion Loss (dB)	1 MHz to 7 GHz		2	3
	7 to 26.5 GHz		1.2	2
VSWR	1 MHz to 24 GHz		1.35	
	24 to 26.5 GHz		1.7	
Risetime/Falltime (ps)[2]			13	
Delay (ps)			280	
Weight (g)			43	

[1]Relative to the phase of a transmission line with same group delay
[2]Specified as 90%/10%. Calculated from $\tau_{inv}^2 = (\tau_{out}^2 - \tau_{in}^2)$

Model Number	Description
INV-0026	1 MHz to 26.5 GHz Pulse Inverter with SMA connectors[1]

[1]Default is SMA female connectors. Consult factory for other connector options.



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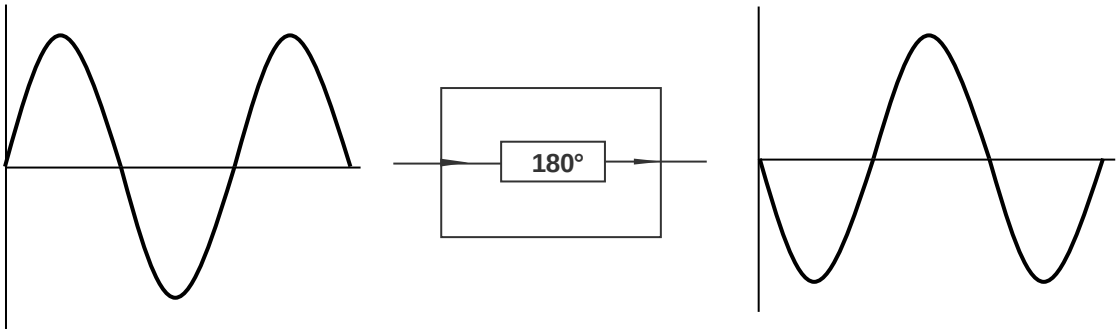
Block Diagram



Typical Performance

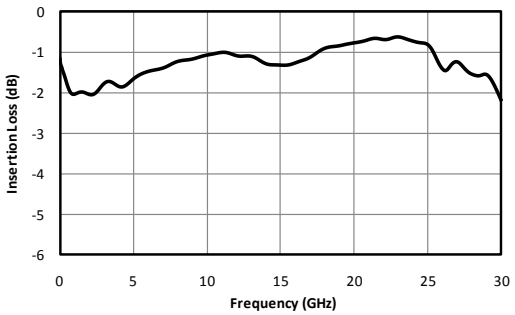


Fig. 1. Insertion Loss

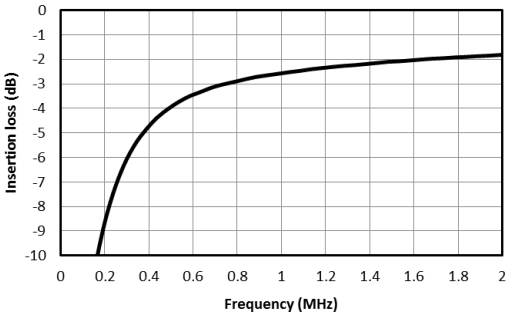


Fig 2. Low frequency Insertion Loss

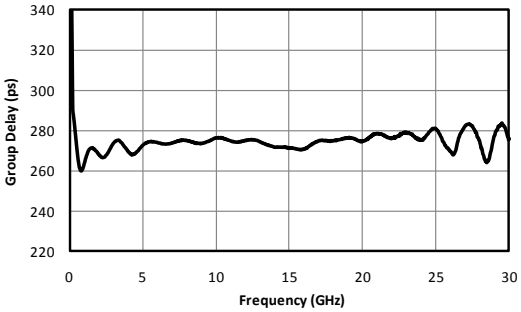


Fig. 3. Group Delay

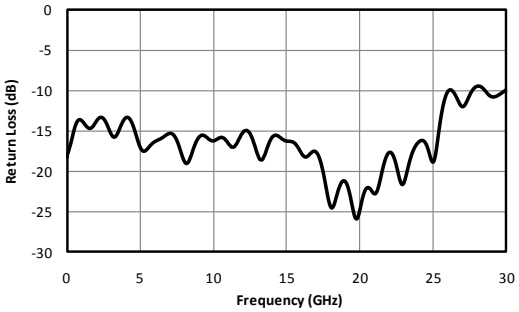


Fig. 4. Return Loss

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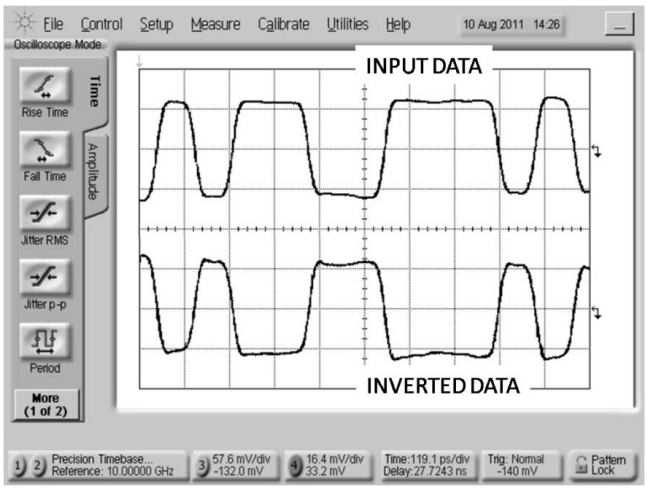

Fig. 4. Oscilloscope measurements of the INV-0026 with a 10 Gb/s PRBS pattern. Bit pattern is measured with a 2^7-1 PRBS input demonstrating extremely good pulse fidelity for the inverted output.

Revision History

Revision code	Revision Date	Comment
-	August 2011	Datasheet initial Release
A	April 2019	Added Low Frequency insertion loss plot