

# EQ3-26 Equalizer (26 Gb/s)

## DEVICE OVERVIEW

### General Description

The EQ3-26 passive equalizer is an ideal solution for compensating for low pass filtering effects in RF/microwave and high speed digital systems. This equalizer provides positive slope from DC to 26.5 GHz with a DC attenuation value of 3 dB and a 50-ohm match maintained over the entire operating range.

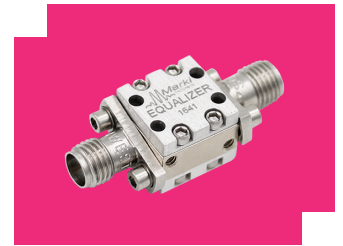
[Download s-parameters here](#)

### Features

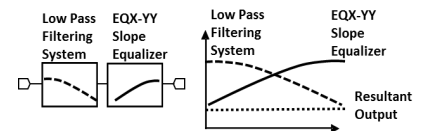
- 26 Gb/s Equalizer
- Matched 50 Ohm Impedance on Input and Output Ports

### Applications

- Digital Communications
- Signal Integrity



### Functional Block Diagram



### Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
EQ3-26	Equalizer (26 Gb/s)	<u>Standard</u>	Non-RoHS	Released	EAR99

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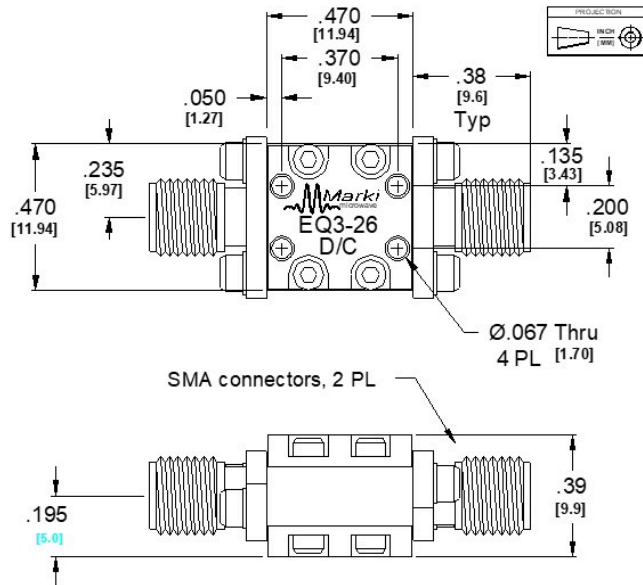
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**Revision History**


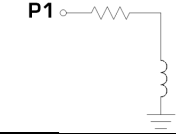

Revision Code	Revision Date	Comment
-	2016-09-12	Initial Date Release

**Port Configuration and Functions**

**Port Diagram**



**Port Functions**

Port	Function	Connector Type	Description	DC Equivalent Circuit
Pad	Ground	-	Ground provided through metal housing and outer coax conductor.	<b>GND</b> 
Port 1	Input/Output	SMAF	Port 1 is DC connected to ground through a resistor. DC block is required if voltage present.	<b>P1</b> 
Port 2	Input/Output	SMAF	Port 2 is DC connected to ground through a resistor. DC block is required if voltage present.	<b>P2</b> 

**Specifications**

**Absolute Maximum Ratings**

Parameter	Maximum Rating	Unit
RF Power Handling	0.25	W

**Package Information**

Parameter	Details	Rating
Weight	-	9g
Dimensions	-	11.94 x 11.94 mm

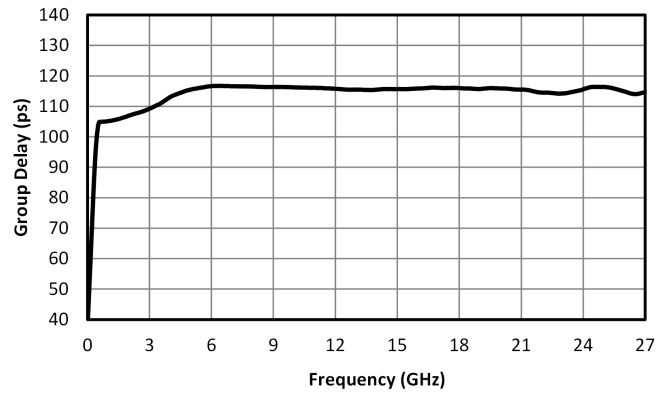
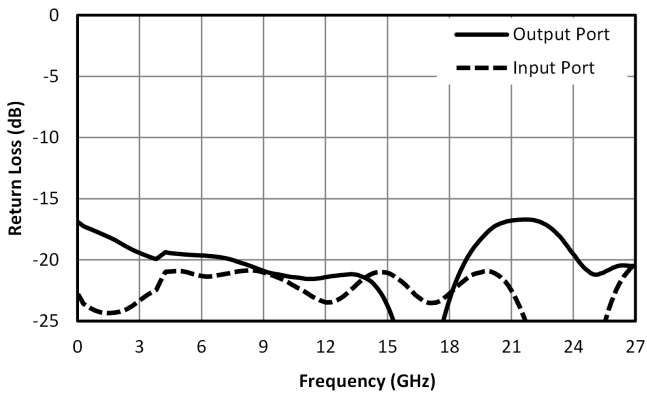
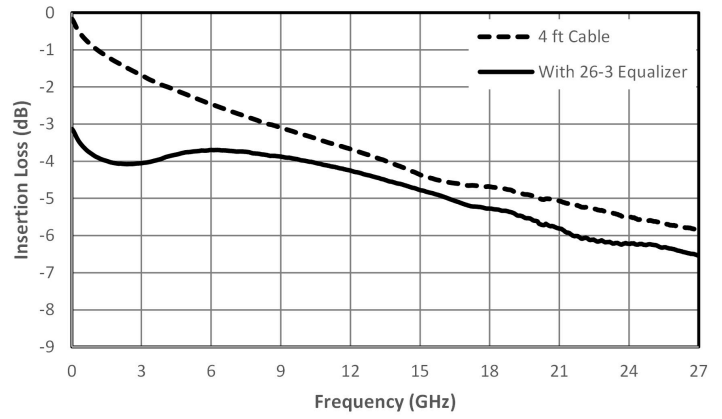
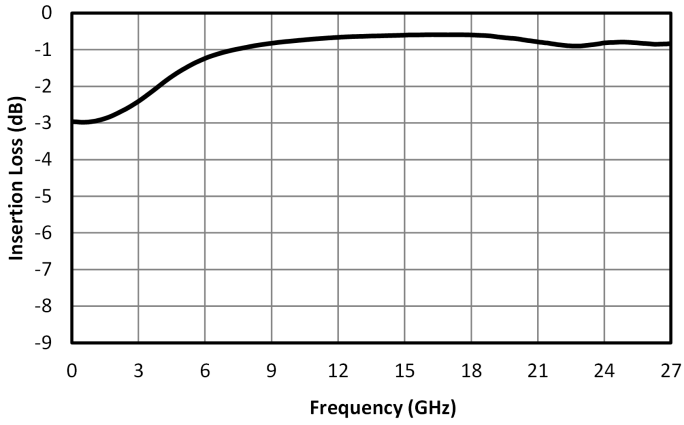
### Electrical Specifications

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

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Insertion Loss	-	6	6	-	1.2	-	dB
Insertion Loss	-	26	26	-	0.8	-	dB
Insertion Loss at DC	-	0	0	-	3	-	dB
Risetime/Falltime <sup>1</sup>	-	0	26.5	-	14	-	ps
Return Loss	-	0	26.5	-	20	-	dB

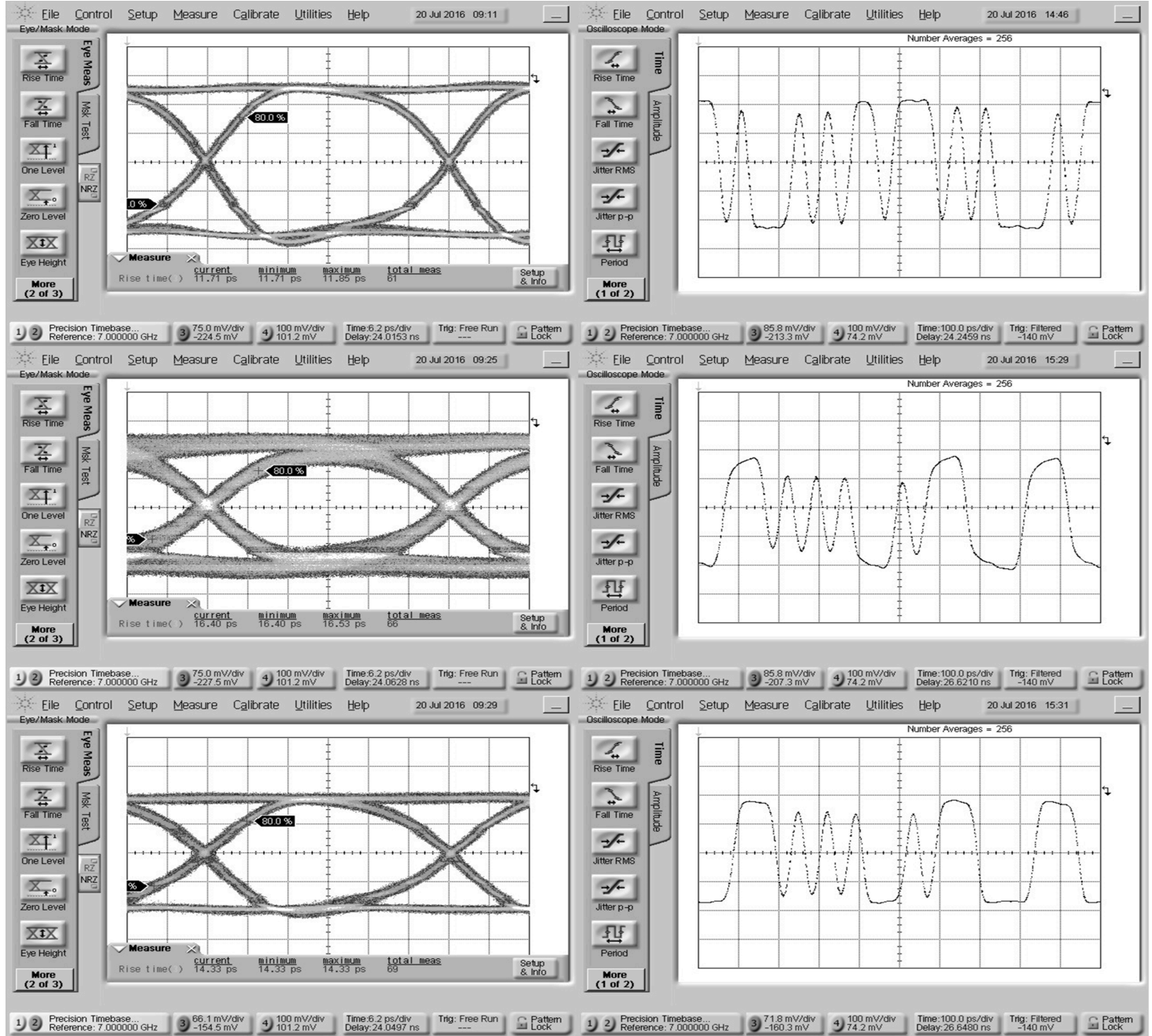
<sup>[1]</sup> Specified as 20%/80%.

**Typical Performance Plots**



**Time Domain Performance Plots**

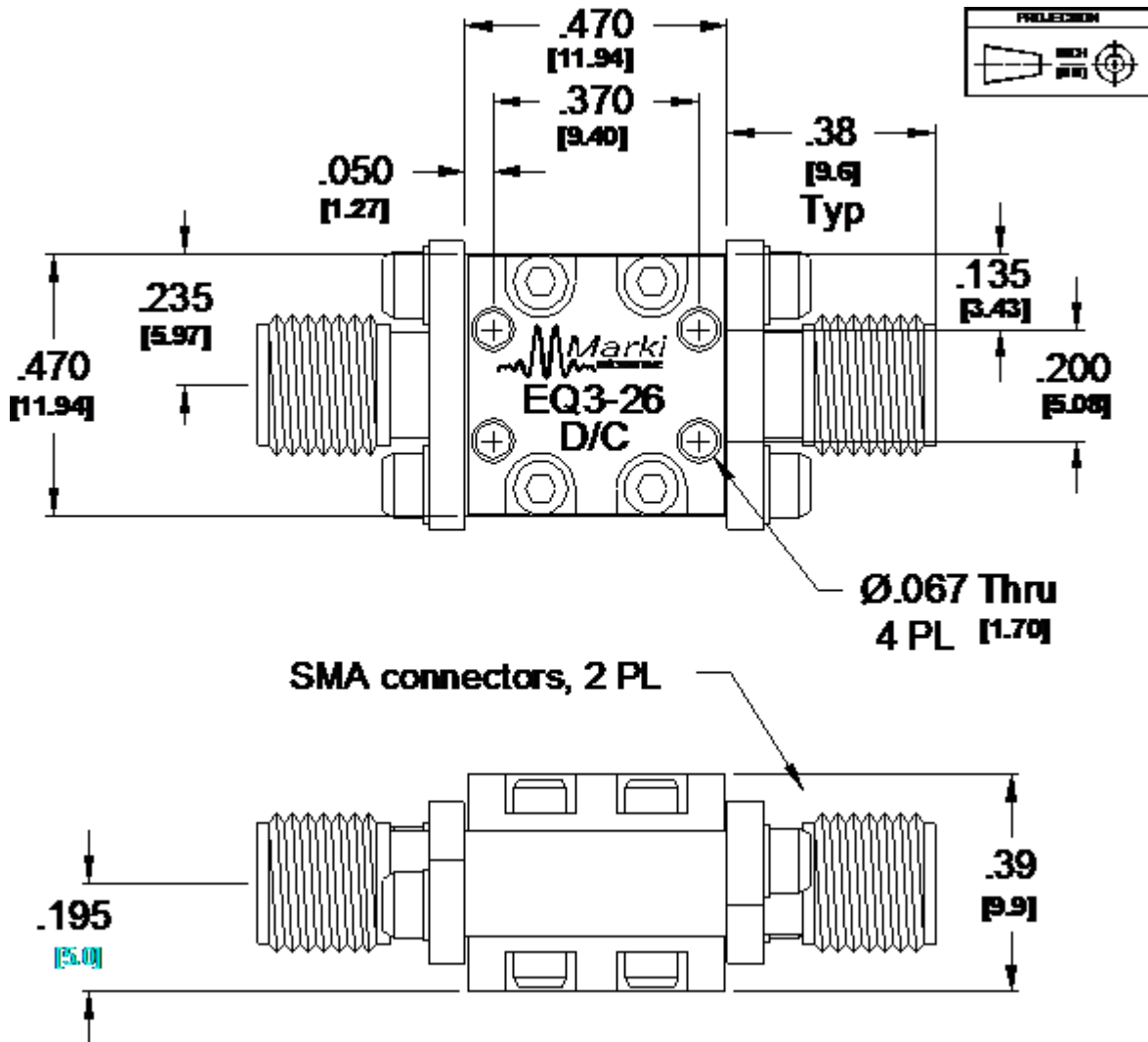
Oscilloscope measurements of the EQ3-26 with a 28 Gb/s PRBS pattern. Bit pattern is measured with a  $2^7-1$  PRBS input. Eye diagrams are taken with a  $2^{31}-1$  PRBS input. The "Input Data Pattern" figure is uncorrelated with the other patterns due to the additional cable length.



**Mechanical Data**

**Outline Drawing**

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



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