

# ESD Protection Adapter

## J1678A, J1679A

Signal Quality Analyzer-R MP1900A

Signal Quality Analyzer MP1800A

BERTWave MP2110A

BERTWave MP2100B

The ESD Protection Adapters J1678A and J1679A are for protecting DUTs and measuring instruments against electrostatic discharge (ESD) and electric overload stress (EOS). Their wide bandwidth (DC to 40 GHz) and low loss (1 dB typ.) support high-reliability measurements when connected between the the Signal Quality Analyzer and BERTWave.

### Max. Absolute Ratings

Item	Min.	Max.	Unit
RF Input Power	-	+23	dBm
DC Current	-40	+40	mA
Operating Temperature	+5	+60	°C
Storage Temperature	-40	+85	°C

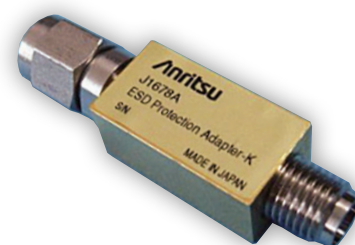
\*: Input of signals exceeding the above-described voltage and current may damage equipment connected to the adapters; use them in a measurement environment with ESD and EOS countermeasures.

### Characteristics

Ta = 25°C, Zin, Zout = 50Ω

Item		J1678A	J1679A
Band		DC to 40 GHz	DC to 50 GHz
Insertion Loss	DC to 40 GHz	Typ. 1.0 dB	Typ. 1.0 dB
	40 GHz to 50 GHz	-	Typ. 1.5 dB
Reflection	DC to 40 GHz	Typ. 15 dB	Typ. 15 dB
	40 GHz to 50 GHz	-	Typ. 10 dB
Clamp Voltage		-1.36 V and +1.36 V*	
Connector		K-connector, plug-jack	V-connector, plug-jack
Dimensions (excluding connector part)		18 × 9.5 × 8 mm	15 × 9.5 × 8 mm

\*: Only use these adapters to measure within the specified clamp voltage range because the measured signal is clamped if the electrical potential of the signal exceeds the negative (-) lower or positive (+) upper clamp voltage.



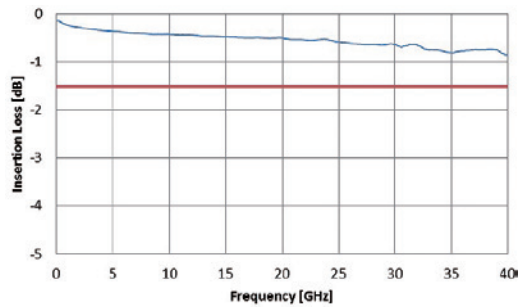
J1678A

## Typical Performances

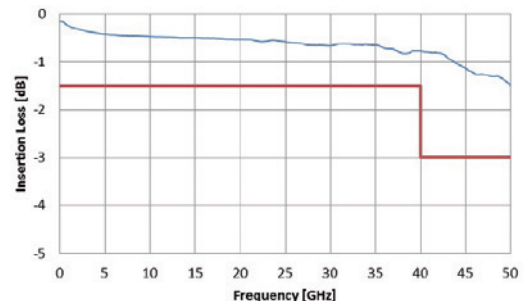
### ESD Withstand Voltage (Test Conditions: IEC61000-4-2)

1.8 kV (single J1678A, J1679A performance)

### Insertion loss



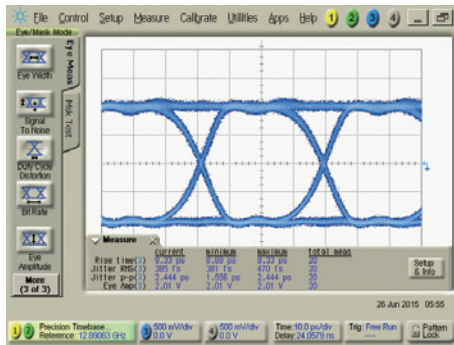
J1678A



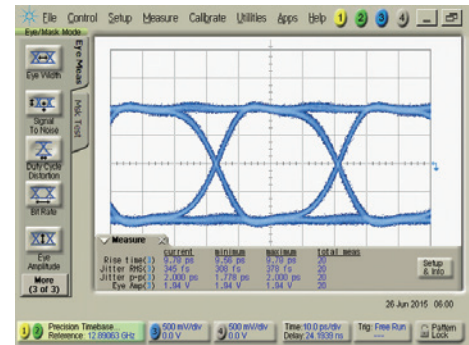
J1679A

### Output Waveform

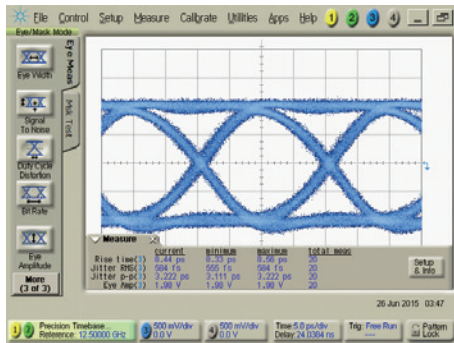
MU183020A Data Output 25.78 Gbit/s, 2 Vp-p



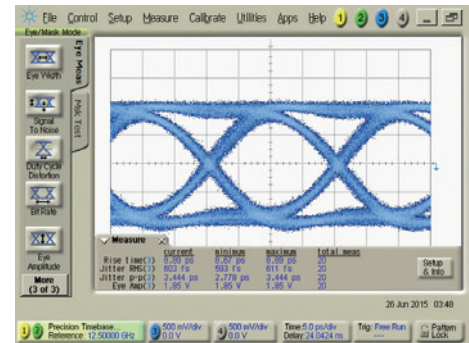
J1678A Output waveform



MP1861A Data Output 50 Gbit/s, 2 Vp-p



J1679A Output waveform



\* Observed with 70-GHz band oscilloscope

## Ordering Information

The actual product name may be different from the name in these tables; contact our sales representative for details.

Model	Name
J1678A	ESD Protection Adapter-K
J1679A	ESD Protection Adapter-V