



"Results You Can Count On"

Solution for TR-380i2 Testing Over Coaxial Cable

- **Perform Gfast Profile 212c TR-380i2 Coaxial Cable Tests**
 - **Net Data Rate Performance with Noise (Gfast with & without diplexers)**
 - **Attainable Net Data Rate Functional Test (without diplexers)**
- **Ideal for automated switching of multiple COAX lines**
- **High performance transparent switches**
- **75 Ohm terminations for unused pairs**
- **Short Range 2 & 3 Reverse Power Feed support**
- **Bidirectional/Low crosstalk**
- **Very low insertion loss**
- **Modular architecture allows for expansion**
- **Can be controlled remotely via Ethernet or 600 Universal GUI software**



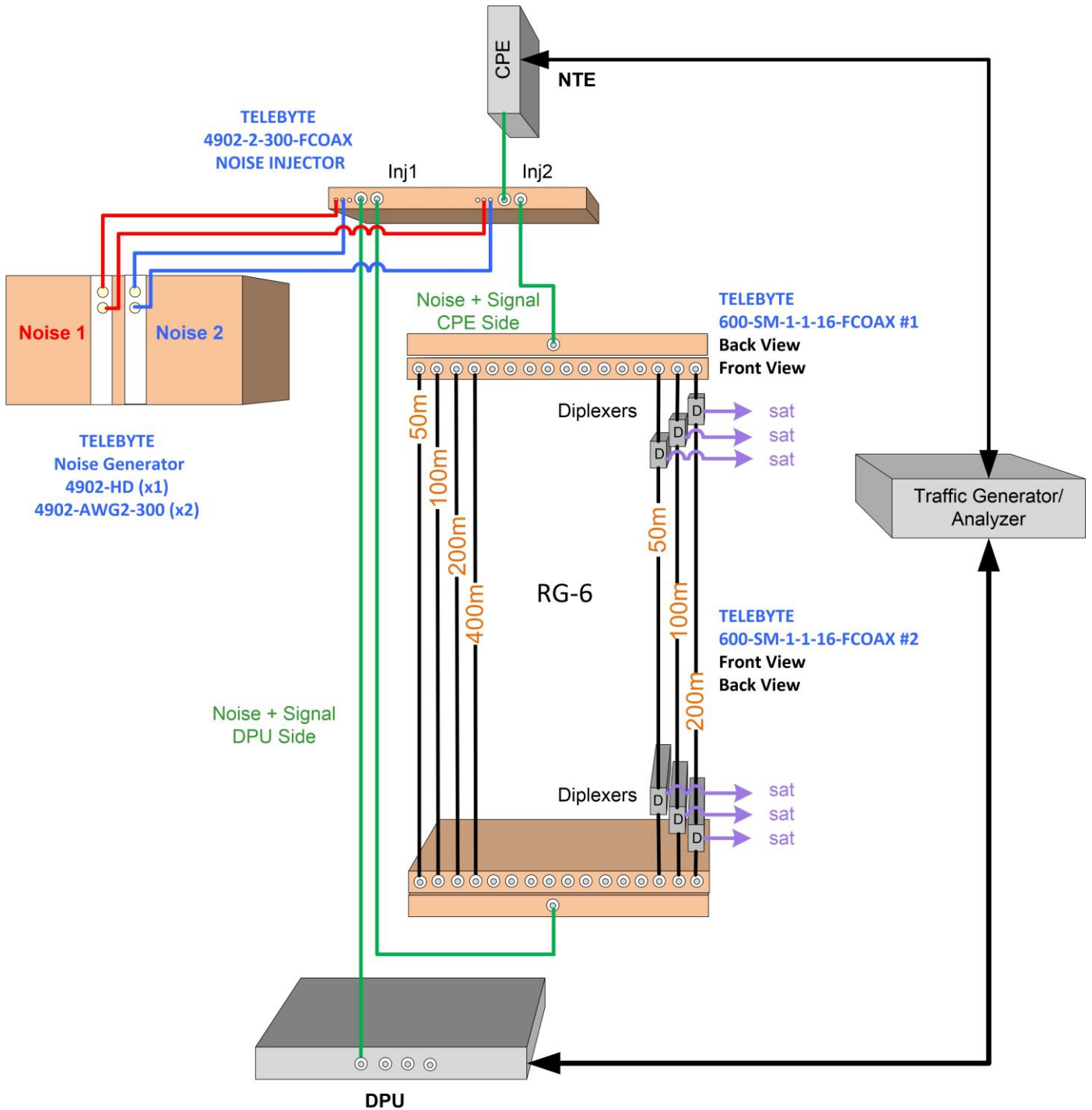
Two Model 600-SM-1-1-16-FCOAX switch modules are shown installed in the Model 600-6SL chassis. Up to six switch modules may be installed in each chassis.



The Model 4902 Noise Generator High-density version holds up to 6 (2 or 4-port) AWG cards for a maximum of 24 AWG outputs while the portable version (shown above) holds up to 4 (2 or 4-port) AWG cards for a maximum of 16 AWG outputs

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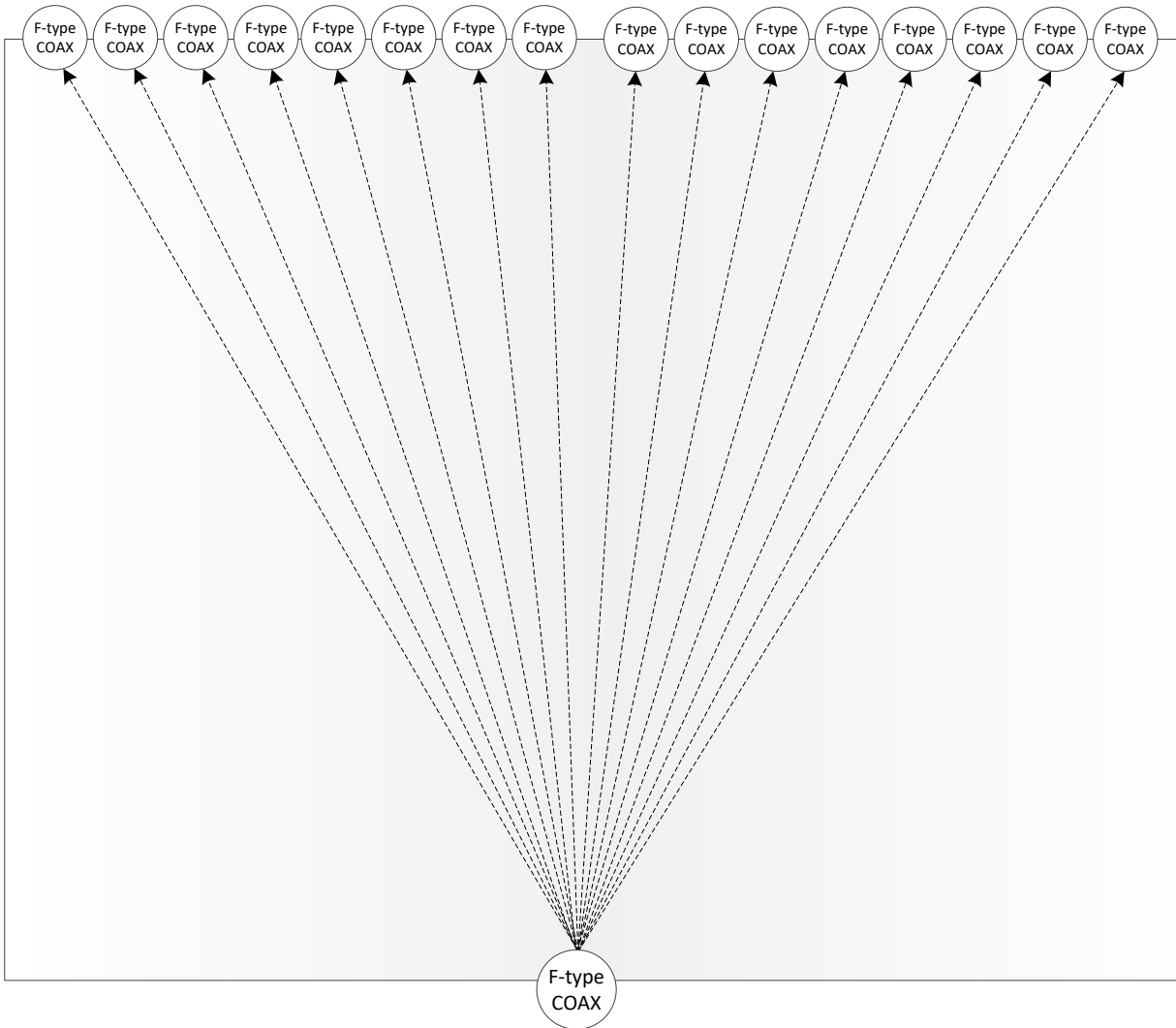
Setup Diagram



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600-SM-1-1-16-FCOAX Matrix Diagram

Input Signal Channels (Front of Unit)



Output Channel (Back of Unit)

The Model 600-SM-16-1-2-TP-100 switching matrix allows 16 lines to be switched to any 1 of 2 connections. Six of these modules may be installed in the Model 600-6SL chassis.

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Solution Components

Model	Quantity	Description
600-SM-1-1-16-FCOAX	2	Transparent Switching Matrix Module (1, 1x16) Coax Cable (F-Type connector)
600-6SL	1	Chassis accepts six 600 series modules. Required for control of modules. Includes web browser-based graphical user interface or CLI control
Optional Noise Generation / Injection		
4902-Portable OR; 4902-HD*	1	Telebyte Portable computer w/built-in display & keyboard. Includes Noise Generation Software. Accepts 1-4, 4902-AWGx cards.
4902-AWGx-300	2	2-Port AWG Card - 600 MS/s, supports 30 kHz to 300MHZ
4902-2-300-COAX	1	2-Channel 300 MHz COAX Noise Injector

*See separate datasheet for full details



Component Specifications – Coax Switch and Chassis

600-SM-1-1-16-FCOAX Transparent Switching Matrix Module	
Bidirectional Signal Switching Capability	1 output channel to any one of 16 input signal channels 1 of 16 input signal channels to 1 output channel
Insertion Loss	25 kHz to 30 MHz: 0.36dB (maximum) 30 MHz to 200 MHz: 0.49dB (maximum)
Signal Connectors	<ul style="list-style-type: none"> 16 F-Type Coax connectors on front 1 F-Type Coax connector on back
Noise Floor	less than -150 dBm/Hz
Impedance	75 ohms
Relay Cycles of Operation	More than 5,000,000 cycles
600-6SL 6-Slot Chassis	
Capacity	Accepts 1-6, 600 Series modules
Remote Control	Web Interface, or remote commands via Telnet
Mounting Options	Desktop or mount in 19" inch rack
Dimensions	[4U] 19 in W x 6 in D x 7 in H (482.6 mm W x 152 mm D x 177.8 mm H)
Power Supply Requirements	88 to 264 VAC, 50 or 60 Hz

Specifications are subject to change without notice. Made in USA. See separate datasheet for full details.

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Component Specifications – Noise Generator & Injector



Model 4902-Portable Universal Noise Generator and Model 4902-2-300-Coax 2-Channel Noise Injector

4902-Portable Universal Noise Generator**	
Remote Commands	Telnet
Included Software	Telebyte Universal Gfast Noise Generator Software
Power supply	AC 90 V to 264 V, 47 to 63 Hz
Operating Temperature Range	0 to 50 ° C
Operating Relative Humidity	5% - 95% non-condensing
Mechanical Dimensions	DxWxH: 9.5" D x 13.5" W x 17.5" H
Weight	32 lbs.
Connectors	10 USB 3.0 Ports, 4 USB 2.0 Ports (2 front), 2 RJ-45 Gigabit LAN
Display	Integrated 17.3-in WUXGA+ (1920 x 1080) display

4902-AWGx-300 2 or 4-Port AWG Card	
Bandwidth	1 kHz to 300 MHz
Noise Outputs	4902-AWG2-300: 2 4902-AWG4-300: 4
Interference Profile Accuracy	≤ 0.5 dB mean absolute error (MAE) for Crosstalk PSD
AWGN Crest Factor	> 5
AWGN Gap	< 10%
Output Impedance	50Ω unbalanced
SMA Connectors	4902-AWG2-300: 2 4902-AWG4-300: 4

4902-2-300-COAX 2-Channel Noise Injector	
Bandwidth	20 kHz to 300 MHz continuous frequency response of signal path
Injection Type	Single Ended
Insertion Loss of Noise Injection Path	0 dB ± 0.5dB
Maximum RMS Output	+5 dBm
Crest Factor	Greater than 5
Noise Floor	Below -150 dBm/Hz as measured at the output of the noise injector
Connectors	<ul style="list-style-type: none"> SMA: (3) Female Connectors per channel for Independent Differential Mode noise from 4902-Portable or 4902-HD; 4 F-Type Coax Connectors on front (2 Input/Outputs for each channel)

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**Also available in rack-mounted version. See separate datasheet for full details