

AMB7300

RF Filter/Switch/Coupler Tester



Highlight

Amoeba[®] AMB7300 is the latest RF solution in our RF Product Roadmap. It is a production-ready test platform which offers a comprehensive test coverage for RF filters and switches.

AMB7300 is designed to achieve the Lowest Cost of Test (CoT) by embedding high parallelism—the highest of parallelism capabilities ever achieved—for RF filter testing. The notable feature includes the testing of 2-port filters with up to 4-port filters’ capability. Moreover, the same system can be used for RF switch testing where only S-parameter measurement is required.

Built with Aemulus’ patent-pending “Time Multiplex[™]” architecture, it allows testing on multi-handler with the ability to test RF filters & RF switches at the same time.

Purpose

RF	Analog	Digital	Discrete
◆			

RF Functionality

- ◆ Supports up to 18 VNA Ports with insulation test capability
- ◆ Frequency range of up to 9GHz
- ◆ Superior power level of up to +15dBm
- ◆ Capable to support up to octal sites for 2-port filters
- ◆ Other features include vector-mixer calibration, TRL calibration, frequency offset and gating

Feature

- ◆ Multi-instance production software
- ◆ Multi-test sites configurations
- ◆ Flexible RF accessories integration
- ◆ Test Object Library (TOL) – Easy development-to-production migration

AMB7300

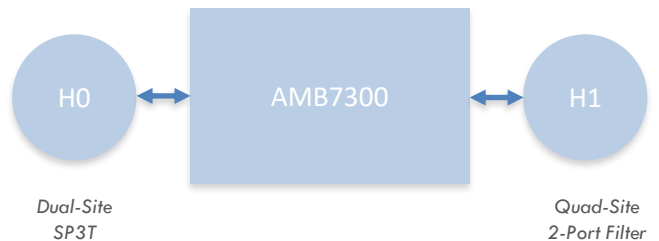
RF Filter/Switch/Coupler Tester

Configuration Summary:

xAMB7300 - XX	Basic (XX=01)		Performance (XX=02)	Extended Performance (XX=03)	
Total VNA Ports	16 (Multiplex)	or	4 (Dedicated)	8 (Dedicated)	18 (Dedicated)
Frequency Range	300 kHz – 9 GHz				
Power Range (Typical)	<ul style="list-style-type: none"> 300 kHz to 4 GHz -45 dBm to +12 dBm 4.0 GHz to 6.5 GHz -45 dBm to +9dBm 6.5 GHz to 8.0 GHz -45 dBm to +5 dBm 8 GHz to 9 GHz -45 dBm to +0 dBm 		<ul style="list-style-type: none"> 300 kHz to 4 GHz : -45 dBm to +15 dBm 4.0 GHz to 6.5 GHz : -45 dBm to +13 dBm 6.5 GHz to 8.0 GHz : -45 dBm to +10 dBm 8 GHz to 9 GHz : -45 dBm to +5 dBm 		
Sweep Type	<ul style="list-style-type: none"> Frequency (Linear or Log) Segmented Power 				
Dynamic Range	300kHz to 1MHz :115dB 1MHz to 5MHz :125dB 5MHz to 4GHz :130dB 4GHz to 6.5GHz :128dB 6.5GHz to 8GHz :123dB 8GHz to 9GHz :115dB		300kHz to 1MHz :125dB 1MHz to 5MHz :135dB 5MHz to 4GHz :140dB 4GHz to 6.5GHz :138dB 6.5GHz to 8GHz :133dB 8GHz to 9GHz :125dB		
2-Port Filters Parallelism	Up to 8 Sites	Up to 2 Sites	Up to 4 Sites	Up to 8 Sites	
4-Port Filters Parallelism	Up to 4 Sites	Single Site	Up to 2 Sites	Up to 4 Sites	
Time Multiplex™ Capability	Head 0 = 8 VNA Ports Head 1 = 8 VNA Ports	Not Supported	Head 0 = 4 VNA Ports Head 1 = 4 VNA Ports	Head 0 = 8 VNA Ports Head 1 = 8 VNA Ports	
VI Source	16 Channels				

Aemulus' Time Multiplex™ Solution

The **Time Multiplex™** feature works in a way whereby one physical tester can be expanded into two logical testers. Each tester will have its own set of virtualised resources to run multiple devices independently. Within this framework, Aemulus leverages on the FPGA advantages by having specific test processors to perform the task in a parallel manner without relying on the typical CPU processing method.



- H0/H1 represents a separate handler or prober
- Two techFlow execute simultaneously and handle two separate devices