



Approved Field Testers

for Certified Networking Systems

Manufacturer	Model	Minimum Firmware Version	Systems Supported		
			Copper	Fiber	HDBaseT
FLUKE	DSX-5000	5.4	x	x	x
	DSX-8000	5.4	x	x	x
	DSX-600	5.4	x		
TREND NETWORKS	LanTEK III	3.212	x		x
	LanTEK IV	1.5	x		x
VIAVI	Certifier	6.0	x		
	OLTS-85 FW	2.08.01		x	
SOFTING	WireXpert	3.91	x		
	WireXpert 4500	7.4	x		
AEM	TestPro CV100	3.2.R2	x	x	x
MSolutions	MS103TDS	3.01.30			x
	MS104B	3.01.30			x

Testing and Acceptance

General	<p>All cables and termination hardware should be 100% tested for defects in installation and to verify cabling system performance under installed conditions according to the requirements of ANSI/TIA-568.2-D, ANSI/TIA-568.3-D or Belden-specified test limits. Any defect in the cabling system installation, including, but not limited to, cable, patch panels and connectors, shall be repaired or replaced prior to system testing. Every installed cable shall be verified by performance testing prior to submitting for system warranty certification.</p> <p>To qualify for system warranty certification, only Belden-approved test equipment listed above shall be used. Test summary reports in PDF format shall be sent for system warranty certification and acceptance via the Partner Alliance portal, and a copy of the test data in the native tester format should be retained by the installer for possible future use or troubleshooting (including all reference/set-up test files).</p>
Copper System Certification	<p>Tester must be calibrated per manufacturer's recommendation.</p> <p>Performance shall meet ANSI/TIA-568.2-D channel limits for system warranty certification.</p> <p>Under certain circumstances, Belden will accept ANSI/TIA-568.2-D permanent link testing or modular plug terminated link (MPTL) testing for system warranty certification. Approval for deviation is required for each project prior to testing.</p> <p>MPTL testing may require special test head adapters from the tester manufacturer. As an alternate way to test MPTL, Belden will accept permanent link testing using the Belden AX104552 test coupler.</p>
Fiber System Certification	<p>Tester must be calibrated per manufacturer's recommendation.</p> <p>Performance shall meet requirements of ANSI/TIA-568.3-D using the Tier I (OLTS) one jumper cord test method. If connectors on each end are not of the same form factor, then a three jumper cord test method shall be used.</p> <p>Reference cords must meet ANSI/TIA-526-7-A for singlemode (SM) systems or ANSI/TIA-526-14-C for multimode (MM) systems. For one jumper method, test reference cords must be verified prior to testing by connecting the TRCs together after setting reference and verifying that loss is 0.1 dB or better for MM and 0.2 dB or better for SM. Verification of test reference cords to be saved and submitted.</p> <p>OTDR measurements are for reference only with the following exceptions:</p> <ul style="list-style-type: none"> • PON systems with OTDR tested upstream only, i.e. ONT to OLT direction. • Singlemode systems greater than 1 km in length with OTDR tested in both directions.
HDBaseT System Certification	<p>Tester must be calibrated per manufacturer's recommendation.</p> <p>For Fluke and TREND Networks testers, performance shall meet ANSI/TIA-568.2-D for 1080p HDBaseT systems and meet Belden-defined limits within the testers for 4K HDBaseT systems. For MSolutions tester, performance shall meet Belden-defined limits within the tester for both 1080p and 4K HDBaseT systems.</p> <p>Belden will accept direct attach, direct connect/MPTL and channel testing for system warranty certification.</p> <p>Direct attach or direct connect/MPTL testing may require special test head adapters from the tester manufacturer. Belden will accept direct attach and direct connect/MPTL testing using Belden AX104552 test coupler(s).</p>