TP Fault Resolution Guidelines

VTI SERVICES

Problem	Possible Causes	Solution
Wire Map		
Split Pair	Termination Issue	Identify, Re-Terminate and retest
Transposed Pairs	Termination Issue	Identify, Re-Terminate and retest
Reversed Pairs	Termination Issue	Identify, Re-Terminate and retest
Continuity	Cable not punched down	Identify, Re-Terminate and retest
Continuity	Cable Broken	Re-run Cable - (Cable break location can be determined by TDR function of tester)- Retest
Insertion Loss- Attenuation (Loss of Signal)		
Failure	Conductor has poor connections at outlet	Re-Terminate and retest
Failure	Excessive Length	Re-route Cable if possible
Failure	Construction of the cable and its components	Replace Cable
NEXT, PSNEXT, ELFEXT & PSELFEXT (Change in the relationship of pairs)		
Excessive Cross Talk	Poor Termination	Re-Terminate and retest
Excessive Cross Talk	Excessive untwisting of pairs at termination	Re-Terminate and retest
Excessive Cross Talk	Cable ties to tight	Remove cable ties and retest-Replace Ccables
Excessive Cross Talk	Cable bundles to large	Re-Bundle - Retest-Re terminate connector - Retest - Replace Cables
Excessive Cross Talk	Cable pulling tension exceeded at install	Re-terminate Connectors -Retest-Replace cables
Excessive Cross Talk	Worn test heads/leads	Replace test heads/leads and retest
Excessive Cross Talk	Coiled cable	Remove coil and retest
Excessive Cross Talk	Bend radius of cable exceeded	Re-route cables and retest - Replace cables
Length (Not a Pass/Fail criteria or Australian Standards)		
Failed as results of cable length	Installed Cable over 90 Metres	Re-route cable
Failed as results of cable length	NVP not set correctly	Set NVP correctly and Retest
Failed as results of cable length	Excessive Temperatures	Re-route cabling away from heat source

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Problem	Possible Causes	Solution
ACR-PSACR		
Failure	Performance level of cable	Check stated performance level of cables and connectors
Failure	Cable To Long	Re-route cable if possible - re-terminate
ELFEXT		
Failure	Cable To Long	Re-route cable if possible - re-terminate
Failure	Poor Cross Talk	Same causes as NEXT problems
Propagation Delay-Delay Skew		
Failure	Cable too long	Re-route cable or provide active equipment
Return Loss (Change in characteristic of conductor)		
Failure	Poor termination	Re-terminate and retest
Failure	Cable ties to tight	Remove cable ties and retest-Replace cables
Failure	Cable bundles to large	Re bundle and retest - Replace cables
Failure	Cable pulling tension exceeded at install	Reterminate - Retest - Replace cables
Failure	Mismatch in test equipment	Change components and check tester leads/adaptors (Personality Modules)
Failure	Bend radius of cable exceeded (Often near termination)	Re-route cables and retest -Replace cables
General		
Various unrepeatable failures	Low Battery	Replace battery or recharge tester
Various unrepeatable failures	Test Instrument out of Calibration	Get tester factory calibrated
Various unrepeatable failures	Worn patch leads	Replace Leads
Various unrepeatable failures	Modules not attached correctly or latching clip broken	Replace leads/modules

Please Note:
Performance of category 6 cable and connectors are more adversely effected by poor installation practices.
Current field experiences indicate that better return loss results are achieved if test cords are calibrated, a twist is added clockwise at termination if required and cable installed in such a way as not to affect the natural lay of the cable