



Comparison Sheet for VCL-2156 NTP TIME SERVER, Primary Reference Clock (ITU-T G.811) & IEEE-1588v2 PTP Grandmaster

Feature	VCL-2156 NTP Time Server	VCL-2156 NTP Time Server, PRC (G.811) & IEEE-1588v2 PTP Grandmaster	VCL-2424 DIN RAIL, NTP Time Server, PRC (G.811) & IEEE-1588v2 PTP Grandmaster
Synchronized Inputs:			
GPS	✓	✓	✓
GNSS (GPS/GLONASS/Galileo)	✓	✓	✓
<100ns Accuracy when locked with GNSS (GPS/GLONASS)	✓	✓	✓
ITU-T G.811 Compliant Clock Outputs	✓	✓	✓
Synchronized Outputs:			
NTP Ports	4+1	4+1	NTP & OAM
IRIG-B (BNC) Unmodulated	✓	✓	1*
IRIG-B (RJ-45) Modulated	✓	✓	x
1 x 2.048 MHz (In Compliant to ITU-T G.811)	✓	✓	1#
1 x 10MHz (In Compliant to ITU-T G.811)	✓	✓	✓
IEEE-1588v2 PTP Grandmaster	x	✓	✓
1PPS	1	1	1
NMEA [0183]	1	1	1
Optional: 1* Either IRIG-B unmodulated or 1# 2.048 MHz			
IEEE-1588v2 PTP:			
PTP Port	x	1	1
Up to 128 unicast messages per second (Telecom Profile)	x	✓	✓
Up to 32 multicast messages per second (Power Profile)	x	✓	✓
ITU-T G.8265.1 (Layer 3 unicast, IPv4)	x	✓	✓
Telecom-2008 Profile (Layer 3 unicast, pre-standard ITU-T G.8265.1, IPv4)	x	✓	✓
Power Profile: IEEE C37.238-2011	x	✓	✓
Communication: Unicast, Multicast or Mixed	x	✓	✓
Best Master Clock Algorithm (BMCA)	x	✓	✓
NTP Time Server:			
NTP Ports - Independent 10/100 Mbit/s, RJ-45 Ethernet interfaces	4+1	4+1	NTP & OAM
Management 10/100 Mbit/s, RJ-45 Ethernet interface	x	x	
Multiple IP addresses for complete network segregation	5	5	1
High bandwidth NTP performance	✓	✓	✓
Processes up to 5000 NTP requests per second 40,000 NTP Slaves 2,50,000 SNTP Slaves	✓	✓	✓
Remote Management and Monitoring	✓	✓	✓
Concurrent IPv6 and IPv4 operation	✓	✓	✓
MD5 / SHA1 Authentication for NTP Clients	✓	✓	✓

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Other Features:			
IEC 61850-3 compliant	✓	✓	✓
Supported networking protocols: IPv4, IPv6, SSH, TELNET, SCP, SFTP, SNMPv2c/ SNMPv3, TFTP, Syslog	✓	✓	✓
Meets and complies with Power Contact and Lightning Protection as per Telcordia GR-1089-CORE and EN61000-4-5 Level 4 specifications.	✓	✓	✓
Leap Second Support	✓	✓	✓
Double Oven Quartz Oscillator (OCXO) for High Stability Hold-Over Clock	✓	✓	✓
Stratum 1 when synchronized to GPS/GNSS, or Stratum 2 in Hold-Over Mode	✓	✓	✓
Local / Remote Management and Monitoring Ports:			
LCD Display	✓	✓	x
RS-232C (DB-9)	✓	✓	x
USB	✓	✓	✓
10/100BaseT Ethernet RJ45	✓	✓	✓
2 x External Alarm Relay Contacts	✓	✓	x
Telnet / SSH (option to disable clear text (Telnet) communication to comply with NERC security requirements)	✓	✓	✓
CLI Control Interface (HyperTerminal or VT100)	✓	✓	✓
SNMPv2c and SNMPv3 Monitoring and Traps	✓	✓	✓
Configuration and Monitoring Software:			
Network Management System to monitor multiple clocks from central location	✓	✓	✓
GUI (Graphical User Interface) Runs on any PC operating on Windows 7, Windows 8 or Windows 10 OS.	✓	✓	✓
Power Supply:			
18-60V DC Power Supply	✓	✓	✓
DC options: 12V DC, 24V DC, 48V DC, 110V DC ~ 220V DC	✓	✓	x
AC Options: 100V AC to 240V AC (50/60 Hz)	✓	✓	x
AC + DC	✓	✓	x
AC + AC	✓	✓	x
DC + DC	✓	✓	x
Dual Redundant	✓	✓	x
Environmental:	-10C to 60C IP40	-10C to 60C IP40	-10C to 60C IP40
Mechanical Specification:			
Width	484.0 mm	484.0 mm	190.0 mm
Height	44.0 mm	44.0 mm	73.0 mm
Depth	252.0 mm	252.0 mm	210.0 mm
Weight	2.3 Kgs	2.3 Kgs	1.0 Kg

Technical specifications are subject to changes without notice.
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