Comparison Sheet for VCL-2156 NTP SERVER & IEEE-1588v2 PTP Grandmaster

Feature	VCL-2156 NTP Server	VCL-2156 NTP Server & IEEE-1588v2 PTP Grandmaster	VCL-2424 Pole-Mount, All-Weather NTP Server & IEEE-1588v2 PTP Grandmaster
Synchronization Inputs:			
GPS	✓	✓	✓
GNSS (Optional)	✓	✓	✓
(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	1
IRIG-B (BNC) Unmodulated	✓	✓	x
IRIG-B (RJ-45) Modulated	✓	✓	x
1 x 2.048 MHz (G.811)	✓	✓	✓
1 x 10MHz (G.811)	✓	✓	✓
1 x NMEA [0183] (DB9)	✓	✓	x
1 x 1PPS	✓	✓	x
IEEE-1588v2 PTP Grandmaster	x	✓	✓
IEEE-1588v2 PTP:			
Up to 128 unicast messages per second (Telecom Profile)	x	✓	✓
Up to 32 multicast messages per second (Power Profile)			
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	✓	✓
Remote Management and Monitoring	✓	✓	✓
LCD Display	✓	✓	x
High bandwidth NTP performance	✓	✓	✓
Processes up to 3000 NTP requests per second	✓	✓	✓
NTP Ports - 4 x Independent 10/100 Mbit/s, RJ-45 Ethernet interfaces	✓	✓	x
NTP Ports - 1 x Independent 10/100 Mbit/s, RJ-45 Ethernet interface	x	x	✓
Multiple (supports up to 4 separate) IP addresses for complete network segregation	✓	✓	✓
Support for up to 16 VLANs for segregated NTP networks to serve separate classes of assets Synchronization of NTP and SNTP clients	✓	✓	x
1 x IRIG-B Un-Modulated (BNC)	✓	✓	x

1 x IRIG-B Modulated (RJ45)	✓	✓	x
Meets and complies with Power Contact and Lightening Protection as per Telcordia GR-1089-CORE and EN61000-4-5 Level 4 specifications.	✓	✓	✓
Concurrent IPv6 and IPv4 operation	✓	✓	✓
Supported networking protocols: IPv4, IPv6, SSH, TELNET, SCP, SFTP, FTP and SNMPv2	✓	✓	✓
Secure network management: enable or disable options	✓	✓	✓
MD5 Authentication for NTP Clients	✓	✓	✓
Leap Second Support	✓	✓	✓
Temperature Controlled Quartz Oscillator (TCXO) for Hold-Over Clock	x	x	✓
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:			
RS-232C	✓	✓	x
USB	✓	✓	x
10/100BaseT Ethernet RJ45	✓	✓	✓
2 x External Alarm Relay Contacts.	✓	✓	x
Local / Remote Communication and Management Options:			
Telnet / SSH (option to disable clear text communication to comply with NERC security requirements)	✓	✓	✓
CLI Control Interface (HyperTerminal or VT100)	✓	✓	✓
SNMP V2 Traps	✓	✓	✓
Configuration and Monitoring Software:			
Telnet, SSH, CLI	✓	✓	✓
NMS - GUI (Graphical User Interface) Runs on any PC operating on Windows 7, Windows 8 or Windows 10 OS.	✓	✓	✓
Power Supply:			
Dual Redundant	✓	✓	
1+1 AC power (100 to 240V AC, 50/60 Hz)	✓	✓	
1+1 DC 24V power	✓	✓	x
1+1 DC -48V power	✓	✓	
1+1 DC 110/220V DC power	✓	✓	
AC or DC	✓	✓	
48VDC, or AC, or 1+1 Redundant AC+DC Power Supply options.	✓	✓	x
18-60VDC Power Supply.	✓	✓	✓
Environmental:	-10C to 60C IP40	-10C to 60C IP40	-40C to 75C, IP65 All Weather Polycarbonate Housing; Suitable for outdoor installation.

Technical specifications are subject to changes without notice.
Revision 1.2A – November 28, 2016

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