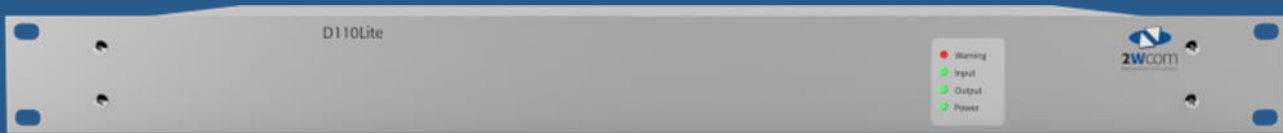


D110lite
Clock Distribution
Unit



D110lite – Clock Distribution Unit

Clock distribution

The D110Lite is an affordable clock and time distribution device to distribute externally fed 1PPS and reference (REF i.e. 10MHz) inputs. For each input signal, there are eight NBC outputs (16 in total).

- ▶ Distribute timing information for devices and network components
- ▶ Synchronize devices for Single Frequency Network (SFN) operation

Internal GPS receiver

Optionally the device can be equipped with an internal GPS receiver module that will source the 1PPS and a 10MHz REF signal internally

- ▶ No need for external GPS receiver, ideal for sites that haven't been upgraded with GPS timing receivers yet
- ▶ Automatic fall back to external reference inputs in case of GPS signal loss

Time synchronization interfaces

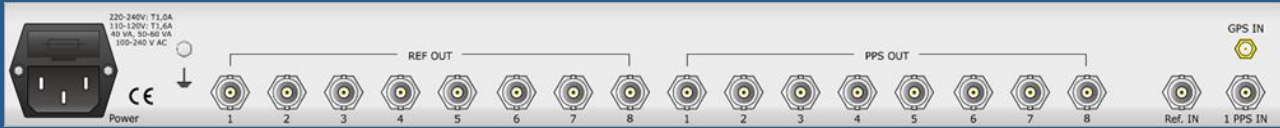
- ▶ 1PPS input
- ▶ Ref input
- ▶ Up to 8 1PPS outputs
- ▶ Up to 8 Ref outputs

GPS module

- ▶ GPS Antenna Input
- ▶ Holdover functionality (100ppb/24h frequency accuracy)
- ▶ Time to first fix:
 - o 26 seconds (cold start)
 - o 1 second (warm start)
- ▶ -166 dBm tracking sensitivity to detect satellite signals from a satellite
- ▶ Antenna supply

General data

- ▶ Power consumption: 20 VA
- ▶ 19", 1 HU, depth: 310 mm, width: 424 mm, front-panel: 484 mm
- ▶ Weight: <5 kg
- ▶ Cooling: passive, no fans
- ▶ Operating temperature range: 0° ... +45°C
- ▶ Power supply: 1x internal 90 ... 260 VAC, 47 ... 63Hz



Technical details (1/2)

Interfaces

Time synchronization

1PPS	Interface: BNC – female 50 Ohm Type: TTL input (1PPS)
Ref In	Interface: BNC – female 50 Ohm Type: 0 .. 5 V input, 10 kHz .. 30 MHz
1PPS OUT1-OUT8	8x BNC – female 50 Ohm Type: TTL output, 5 V
REF OUT1-OUT8	Typical 6 dB, max. 12 dB Type: TTL output, 5 V Standard: Ref In Option GPS: 10 MHz

GPS

Input	Interface: SMA, female Type: GPS antenna input
Parameters	Advanced internal GPS receiver with holdover functionality (100 ppb/24 h frequency accuracy) Time to first fix: 26 s (coldstart), 1 s (warmstart) Sensitivity: -166 dBm (Tracking) Time pulse accuracy: 30 ns (RMS), 60 ns (99%)
Antenna supply	Passive: 0 V Active: 3,3 V / 5 V , 20 mA



Technical details (2/2)

Front panel

LEDs 4x LEDs

General data

Power consumption < 20 W

Case dimensions 19", 1 RU, depth: 310 mm, Width: 424 mm, front panel: 484 mm

Weight < 6 kg

Material Steel plate (aluminum-zinc coated)

Operating temp. range 0...+45°C

Storage temp. range -40...+70°C

Languages English

Power supply

Standard AC 1 internal IEC power connector
voltage range 90 – 260 VAC (nominal 100 – 240 VAC)
frequency range 47 – 63 Hz (nominal 50 – 60 Hz)




Options

D110Lite base unit variations

Article no.	Name
VER45600	D110Lite – Clock Distributor

D110Lite hardware options

Please note that hardware options are installed at the factory in Flensburg, Germany, and can only be retrofitted independently in individual cases. Prices per unit.

Article no.	Name	Description
VER45602	advanced GPS module	<ul style="list-style-type: none">▶ Internal GPS module for generation of 10 MHz, 1PPS.▶ High accuracy and stable clock synchronization even if the GPS signal is lost.
VER45610	external GPS antenna	 <p>Multi-band active GNSS antenna with 5 m cable and SMA connector.</p>
VER45620	external GPS antenna cable 5m	<ul style="list-style-type: none">▶ Impedance: 50 ohm▶ Loss dB/M @1.8 GHz: 0.52, @2.1 GHz: 0.64▶ Operating Frequencies: up to 6 GHz
VER45621	external GPS antenna cable 10m	Same as VER45620
VER45622	external GPS antenna cable 15m	Same as VER45620
VER45623	external GPS antenna cable 20m	Same as VER45620