

D110Lite clock distribution

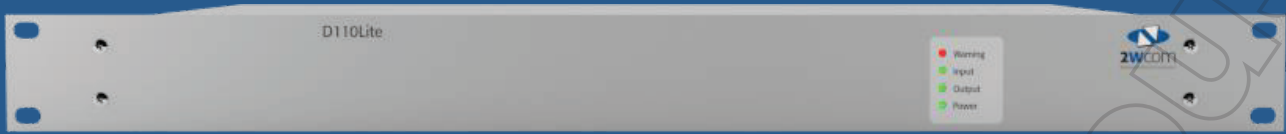
Professional clock distribution

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D110 Lite – clock distributor



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:
 - 26 seconds (cold start)
 - 1 second (warm start)
- ▶ -166 dBm tracking sensitivity to detect satellite signals from a satellite
- ▶ Antenna supply

General data

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



Technical details



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%) Passive: 0 V Active: 3,3 V / 5 V , 20 mA |
| Antenna supply | |

Front panel

| | |
|-------------|---------|
| LEDs | 4x LEDs |
|-------------|---------|

General data

| | |
|------------------------------|--|
| Power consumption | 20 VA |
| Case dimensions | 19", 1 HU depth: 310 mm, width: 424 mm front panel: 484 mm |
| Weight | <6 kg |
| Cooling | passive, no fans |
| Housing | steel plate (aluminum-zinc coated) |
| Operating temp. range | 0.. +45°C |
| Storage temp. range | -40.. +70°C |
| Power supply | 1x internal, 90. 260V, 47. 63 Hz |

Power supply

| | |
|-----------------|--|
| Standard | 1x internal, 90...260 VAC, 47...63 Hz, 1x power port (rubber connector) |
| Optional | Redundant power supply 230 VAC: 1x internal 90...260 VAC/47...63 Hz, 1x power port (rubber connector), aut. switchover |
| Optional | Redundant power supply 48 VDC: 1x internal 40...60 VDC, 1x power port (Neutrik powerCON), aut. switchover |