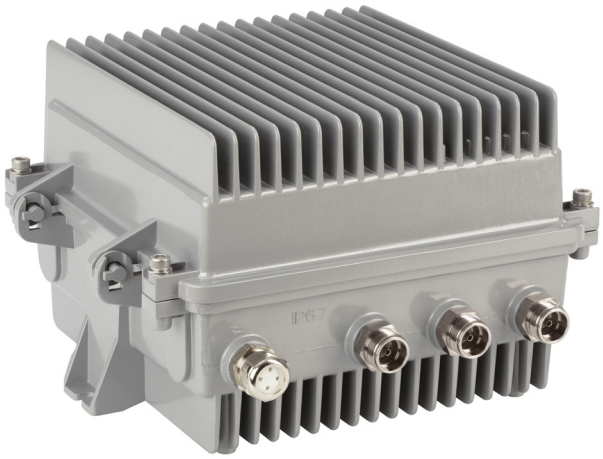

# REMOTE-PHY NODE

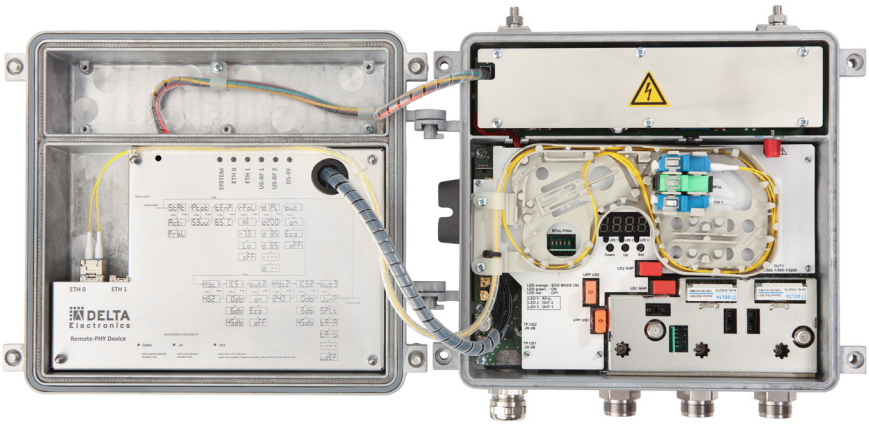
## With integrated GaN launch amplifier with two active outputs



FOSTRA-F CONNECT
NETWORK MANAGEMENT SYSTEM
1.2G

### KEY BENEFITS

- Modular approach for RPD only usage (one or two active outputs) or plus RFoG receiver option
- Usage of standard SFP+ modules (extended temp range up to 95°C possible), 2x slots for red./daisy chain
- GaN – technology for powerfull launch amplifier for N+0 or cascade usage
- Two independent active & controlled outputs with prepared DPD setup
- 1:1 or 1:2 SG support, sharing of OFDMA carrier across the service groups possible
- Independent configurable ECO mode support and/or switch off for each amplifier to optimize signal level and power consumption based on needed carrier load
- Selectable switch off RFoG receiver path if not (longer) needed
- Pluggable diplexer with automatic detection of type and peaking adjustment
- 3rd output as external test point or tap/split to the 2nd output (for RF daisy chaining, distribution, input for inverted node etc.)
- Local or remote control for amplifier parameter (remote via CLI or GUI, local via keypad if access enabled)
- Internal unidirectional test points for DS & US
- Status information about temperature (min/max), power consumption, used diplexer, amplifier current and other settings as well as opened device
- Integrated FSK modulator for FOSTRA-F support in following attached amplfiers (for N+x setups)
- FPGA usage allows multiple loads of different configurations as well as later updates (via remote download) for new features, adaptations and improvements
- FDX frequency support in RPD module for US path already given to support future static upstream frequency exensions
- Smallest form factor in the market based on the given functionality



| Typ | RPD A-R 244 | RPD A-L 244 |
|---|---|---|
| Item No.<br>Standard Remote-Phy Node is without SFP+ modules and four cable gland | 57005332 (complete) | 5700xxxx (i.p.) |
| Basic standard carrier configurations but not fixed | DS 96/1 + US 16/0 or DS 64/2 + US 16/0 or DS 48/3+ US 8/1 (each 1:1 or 1:2 SG)<br>(DS SC-QAM/OFDM + US ATDMA/OFDMA) | |
| RF-Overlay | Optional electronically connectable (on/off) RFoG plug in module for extra-DS signal path with JXP pluggable bandpass filter slot | |
| Final amplifier stage | 2 x Power Doubler GaN<br>II Switchable between full powered and configurable eco-mode<br>II Remote electronical adjustable current for exact leveling and eco-mode<br>II 119 CH 2560QAM typ. 111-112dBµV/BER before RS < 1.0E-8 and MER > 42dB, up to 116dBµV/ BER after RS 1.0E-09 and MER > 32dB with 9dB slope | |
| Digital-Pre-Distortion DPD | Already prepared for DPD with two independent feedback loops plus integrated ADC and current control of each single GaN amplifier | |
| Frequency | Pluggable diplexer modules with auto-detection an remote read out for 65/85/204 MHz split and automatic peaking | |
| Slope/Att./Peaking/ICS | Electronically adjustable level plates (local via keypad/remote via CLI or GUI) for DS and US | |
| Test points | -20 dB (F-female, internal) unidirectional for DS/Out 1 & DS/Out 2<br>-20 dB (F-female, internal) unidirectional for US 1 & US 2 | |
| RF connectors | PG 11 for Out 1 & Out 2<br>Out 3 could be used as split or tap port to Out 2 (jumper inside for tap, split or remote power only) | |
| Control | Initial access and control via serial port (µUSB). Remote control possible via CLI and GUI.Local access to RPD module will be blocked after getting connected to CCAP.<br>4x7 segment display for amplifier parameter and automatic menu (three button keypad) | |
| Fiber connections | Fiber tray inside the node for the fiber connectivity<br>Two 2-port LC-SC adapter for the digital signals<br>One SC-APC adapter for the optional RF-Overlay DS signal | |
| SFP+ slots | Two SFP+ slots for field replaceable SFP+ modules.<br>Can be used for daisy chaining or redundancy design (L2) | |
| Available SFP+ modules up to 85°C (other modules possible, but not tested) | 57005339 10km/1310nm/dual fiber ( -5°C...+85°C) FTLX1471D38NL<br>57005338 30km/1271nm/BiDi (-40°C...+85°C) FTLX2672D327<br>57005337 30km/1331nm/BiDi (-40°C...+85°C) FTLX2672D333<br>57005336 10km/full tunable/BiDi (i.p.) ( -5°C...+85°C) FTLB8611P3NC<br>57005351 10km/1310nm/dual fiber (-40°C...+95°C) PTO-S1-4103S | |
| Sensors | Internal temperature and housing open sensors with min/max value storage / power consumption sensor, remote readable | |
| Power Consumption | Depending on enabled features and settings as well as used SFP+ modules - from 55..80W | |
| Dimensions / Weight | 263 x 213 x 163 mm / 5 kg (with optional cooling plate in 19“ form factor 266 x 483 x 173 mm) | |

Subject to change without notice.