



Portable optical power meter Fibrain FPPM-345

The portable Fibrain FPPM PON meter is used for optical power measurements in FTTx/PON optical networks with the GPON/GEAPON transmission protocol and optionally with the CATV 1550 nm signal. In contrast to standard power meters, the Fibrain FPPM-345 PON meter has built-in 1310, 1490, and 1550 nm filters that allow simultaneous power measurements at three different wavelengths and operates in the transparent mode (i.e. does not block the optical transmission and is plugged into a link in series), which also enables measurements in both directions at the same time. The FPPM-345 meter operates in a "burst mode", and as such it is able to measure short bit streams sent from GPON/GEAPON network terminations in the assigned time slots. Apart from the "burst mode", the FPPM-345 meter can also operate in the standard CW (continuous wave) mode. The unique features of this device are user-friendly software, a possibility of setting alarm thresholds by the operator, and a large memory with a USB port.

Functionality:

- **Automatically identifies and measures** 1310, 1490, and 1550 nm wavelengths
- Built-in high isolation **optical filters**
- Transparent mode of operation – allows measurements in an operating network
- Burst mode of operation – allows accurate measurement of 1310 nm in PONs
- **Continuous wave (CW)** mode of operation
- **Bidirectional** measurements
- User-defined warning thresholds
- Large dynamic range
- USB interface for **transferring data to computer**
- Measurement results displayed in linear (mW) or logarithmic (dBm) scale
- **Built-in batteries**, battery recharger included
- Protective rubber cover
- Backlit LCD screen
- Low battery consumption, long battery life



Technical data			
Optical parameters			
Measured wavelengths [nm]	1310	1490	1550
Passbands [nm]	1260-1360	1470-1505	1535-1570
Dynamic range [dBm]	+10/-40	+10/-45	+23/-45
Isolation relatively to other channels [dB]	min. 40	min. 40	min. 40
Insertion loss [dB]		max. 1.5	
Measurement accuracy [dB]		+/- 0.5	
Measuring units		dBm, mW	
Resolution [dB]		0.01	
PDL [dB]		max. 0.25	
Operation modes		Burst mode / CW	
Warning threshold setting		Yes	
Connector type		SC APC	
Other functional parameters			
Battery running time	1100 min		
Auto Off function	Yes		
Backlit display	Yes		
Data storage	Yes		
PC interface software	USB		
Memory	100 records		
Battery recharge interface	Power jack		
Mechanical and environmental parameters			
Weight [g]	450		
Dimensions [mm]	90x200x43		
Display	LCD, 2.8"		
Working temperature [°C]	-10 / +60		
Humidity	10% / 90%, no condensation		