



C-Band DWDM with Power Monitoring

Ascentac MFNS7600&7700

Enhances transmission bandwidth and capacity without additional optical fibers, while enabling rapid fault localization through optical power monitoring.

| Feature

- Bidirectional optical power and alarm monitoring
- Optical power degradation analysis
- DWDM module status monitoring at BBU and AAU ends
- LC connector

| Application

- 4G or 5G fronthaul

| Description

Ascentac MFNS 7600 & 7700 Series C-Band DWDM Optical Power Monitoring Equipment can couple multiple optical fiber signals of different wavelengths into a single optical fiber, enabling simultaneous transmission of multiple signals.

This series provides real-time monitoring of optical power variations on each channel, with an optical power status indicator for each channel, allowing users to easily identify the operating status of individual channels. It also provides an optical monitoring port, enabling direct measurement of optical characteristics without interrupting the system operation. When integrated with a Network Management System (NMS), the equipment can centrally manage devices across multiple base stations. Users can define their own optical power threshold values. When an abnormal optical power condition is detected, the system will generate an alarm. Through the NMS, users can quickly identify whether the fault is located at the BBU (Baseband Unit) side, AAU (Active Antenna Unit) side, or somewhere along the transmission line, facilitating efficient fault detection and troubleshooting.

Scalable Modular Design

Indoor Type

Compact 2U rackmount design offers high flexibility and mobility, compatible with standard 19-inch, 21-inch, and 23-inch racks or cabinets.



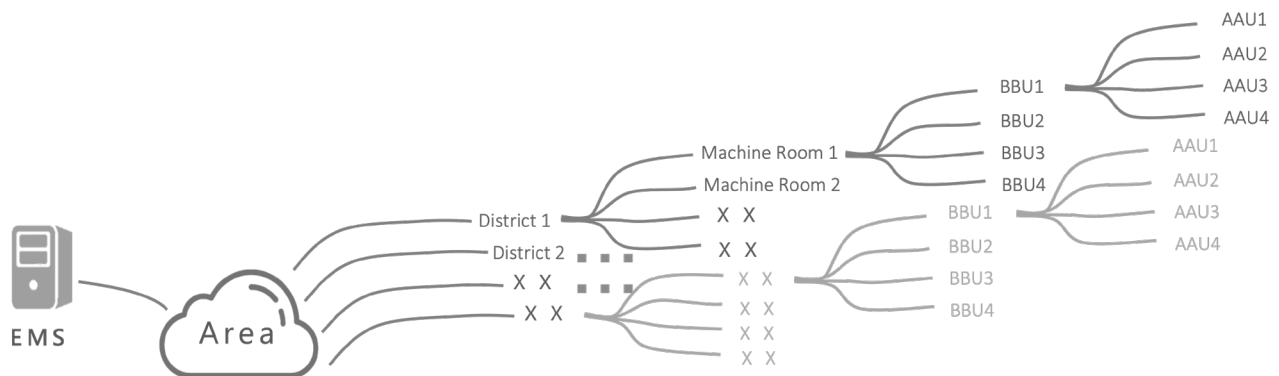
Outdoor Type

Outdoor enclosure design equipped with U-bolt mounting brackets for pole installation, featuring an IP55 weatherproof (dust and water resistant) rating.



EMS Structure

The Element Management System (EMS) can contain the equipment of each district with the hierarchical design. Different classes and names can be defined by users. The monitoring data between the end of Base Band Unit (BBU) and the end of Active Antenna Unit (AAU) can be collected in this system.



Dashboard



Several thresholds can be set. Alarm will be generated if the value is lower then the threshold.



Area Management

Levels and names can be defined by users as the tree structure on the left side of the interface.

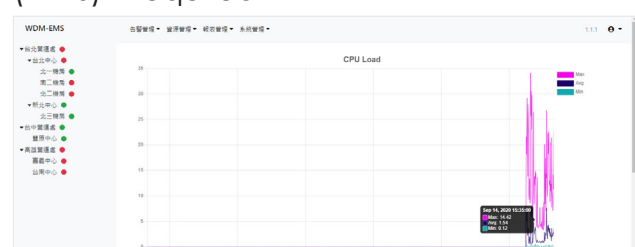
Personnel Management



Performance Management

Monitor the performance status of the operation and be integrated with the customer's Network Management System (NMS) if required

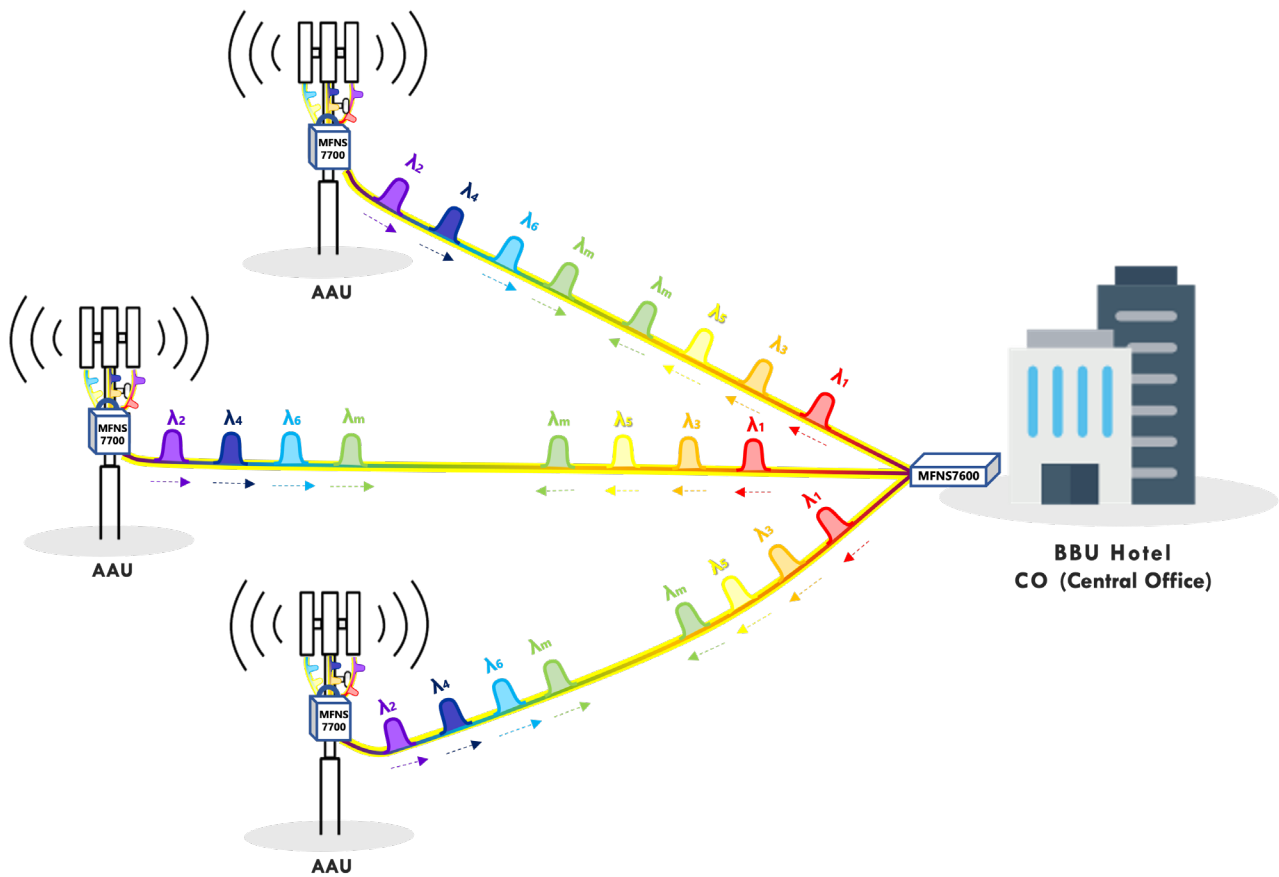
Alert



EMS : Element Management System

NMS : Network Management System

Application



BBU: Base Band Unit
AAU: Active Antenna Unit
Yellow Line: Optical Fiber
 λ_m : Remote Information Return Wavelength



Specification

C-Band DWDM with Power Monitoring					
Channel		6	12	18	24
ITU Channels		C20 to C25	C20 to C31	C20 to C37	C20 to C43
Channel Spacing (GHz)		100			
Return Loss (dB)		45			
Insertion Loss (dB)		3.2	4.4	4.6	4.6
Isolation (dB)	Adjacent	30	30	30	25
	Non-adjacent	45	45	45	30
Channel Power Range (dBm)		+10 to -35			
Accuracy (dB)		0.25 @ -10dBm			
Resolution (dB)		0.01			
Connector Type		LC/PC			
Power Supply (V)		-44 to -56			
Power Consumption (W)		≤ 10			
Indoor Unit Management Interface		RJ45			
Outdoor Unit Ingress Protection		IP55			
Operating Temperature (° C)		0 to +55			
Storage Temperature (° C)		-10 to +70			
Storage Humidity (%)		5 to 100, non-condensing			
Dimensions (H x W x D) (mm)		Indoor Chassis: 88.9 x 482 x 290 Outdoor Chassis: 487 x 310 x 180 Module: 27.1 x 216.5 x 267			
Weight (kg)		Indoor Chassis (without module): 2.53 Outdoor Chassis (without module): 3.68 Module: 0.9			

Ordering Information

Indoor Chassis

MFNS 07-07010

Note: 2U in height.

Example: MFNS 07-07010

Indoor Module

MFNS 07-076 **XX**

Channel 

- 01 : 6-CH, 6 wavelengths (3 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz
- 02 : 12-CH, 12 wavelengths (6 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz、
192.6 THz、192.7 THz、192.8 THz、192.9 THz、193.0 THz、193.1 THz
- 03 : 18-CH, 18 wavelengths (9 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz、
192.6 THz、192.7 THz、192.8 THz、192.9 THz、193.0 THz、193.1 THz、
193.2 THz、193.3 THz、193.4 THz、193.5 THz、193.6 THz、193.7 THz
- 04 : 18-CH, 18 wavelengths (9 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz、
192.6 THz、192.7 THz、192.8 THz、192.9 THz、193.0 THz、193.1 THz、
193.2 THz、193.3 THz、193.4 THz、193.5 THz、193.6 THz、193.7 THz、
193.8 THz、193.9 THz、194.0 THz、194.1 THz、194.2 THz、194.3 THz

*TX: Transmit; RX: Receive

Example: MFNS 07-07601

MFNS 07-077 XX

Channel

- 01** : 6-CH, 6 wavelengths (3 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz
- 02** : 12-CH, 12 wavelengths (6 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz、
192.6 THz、192.7 THz、192.8 THz、192.9 THz、193.0 THz、193.1 THz
- 03** : 18-CH, 18 wavelengths (9 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz、
192.6 THz、192.7 THz、192.8 THz、192.9 THz、193.0 THz、193.1 THz、
193.2 THz、193.3 THz、193.4 THz、193.5 THz、193.6 THz、193.7 THz
- 04** : 24-CH, 24 wavelengths (12 pairs of TXs & RXs)
192.0 THz、192.1 THz、192.2 THz、192.3 THz、192.4 THz、192.5 THz、
192.6 THz、192.7 THz、192.8 THz、192.9 THz、193.0 THz、193.1 THz、
193.2 THz、193.3 THz、193.4 THz、193.5 THz、193.6 THz、193.7 THz、
193.8 THz、193.9 THz、194.0 THz、194.1 THz、194.2 THz、194.3 THz

* TX: Transmit; RX: Receive

Example: MFNS 07-07701

