Himark
Power Transmission Distribution

Digital Distribution Frame Catalogue

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1. Product Overview

DDF is a digital distribution frame used for patching connections between digital multiplexing equipment, as well as between digital multiplexing equipment and program-controlled switching equipment. In communication systems, the DDF distribution frame plays the role of a "traffic hub," responsible for interconnecting various communication devices to ensure smooth and accurate signal transmission.

2. Product Features

- **Standard Structure**: Adopts a 19-inch standard unit design, which can be installed in cabinets and offers strong universality.
- **High Impact Resistance**: The mounting plate is made of cold-rolled steel, providing corrosion resistance and a shielding effectiveness of ≥60dB, preventing signal leakage or interference.
- **Excellent Shielding Performance**: Utilizes nickel-plated three-way connector shells, featuring low loss, salt spray resistance, oxidation resistance, and capable of ≥500 termination cycles.
- **High Reliability**: Employs gold-plated phosphor bronze cores to ensure tight connections and superior conductivity.
- **Strong Safety Performance**: The grounding system features low impedance and stable signals, with lightning protection and electromagnetic interference resistance.
- **Anti-Dislodgment**: Designed with fixed buckles that can rotate 90°, facilitating easy installation, removal, and wiring.

3. Functions

- **Patching Function**

  The digital distribution frame can manage and organize network connections, integrating the digital signal streams of digital communication equipment. Whether it is a 2Mb/s or 155Mb/s signal, it can be easily connected to the digital distribution frame, providing significant convenience for wiring.

- **Adjustment and Transfer Function**

  The digital distribution frame offers adjustment and transfer capabilities, allowing for easy modification of fiber optic or cable connections to adapt to changes in network topology.

- **Monitoring Function**

  The digital distribution frame can also monitor network connections, helping administrators stay informed about the network status in real time and promptly identify and resolve issues.

- **Improved Network Connection Efficiency**

The use of a digital distribution frame simplifies the management of network connections, enhances the efficiency of troubleshooting and maintenance, and ensures smoother operation of the entire network system.

4. Working Principle

The working principle of the DDF (Digital Distribution Frame) is based on circuit connection and signal transmission.

The DDF features a series of jacks, each representing a communication device. The number of jacks varies depending on the scale of the communication system. When a connection between two devices is required, the specific ports of these devices must first be identified. Each device has a unique identifier, such as a number or name, to facilitate locating the corresponding jack on the frame. These jacks are commonly referred to as patch jacks.

When one device needs to communicate with another, it sends a signal to the distribution frame indicating the target device and port for connection. Based on this signal, the distribution frame establishes a circuit between the jacks, enabling the signal to transmit from one device to the other.

Simultaneously, the DDF serves a scheduling and management function. It provides direct or cross-connection allocation for digital communication equipment within the computer room or specific rows using various corresponding cords or plugs. This enables fixed or temporary circuit scheduling, facilitating a flexible and adaptable communication network. It offers convenient test connection points for engineering and maintenance tasks, making it easier to inspect or reconfigure transmission equipment and lines.

In summary, through the principles of circuit connection and signal transmission, the DDF enables flexible connectivity and scheduling between digital communication devices, providing essential support for the stable operation and efficient management of communication systems.

5. Technical Specifications

Product Overview

Product Name: 16 System DDF Digital Distribution Frame

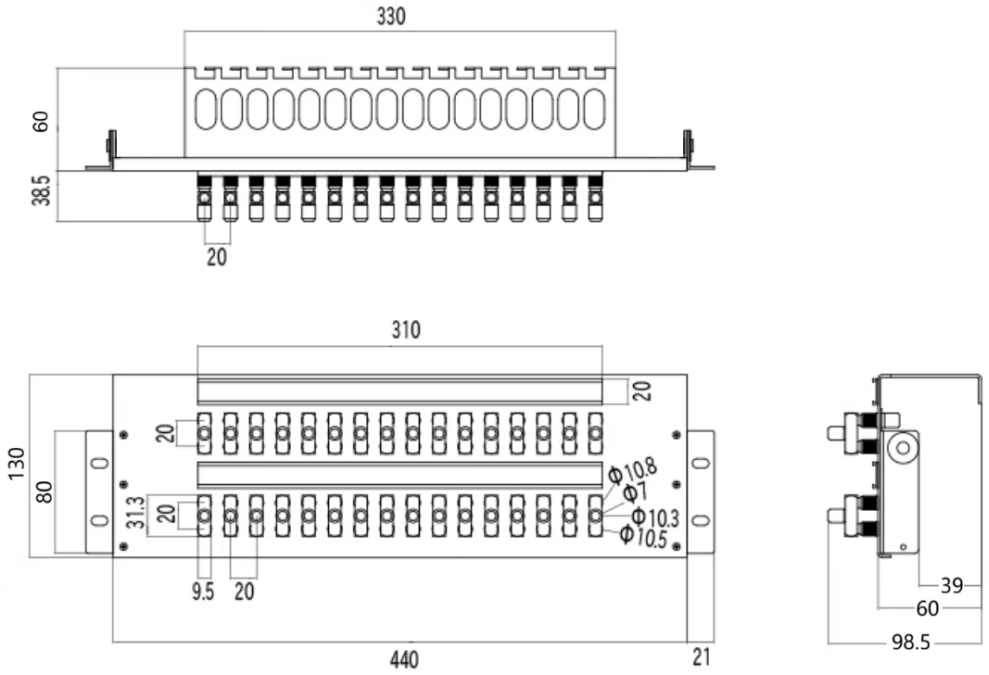
Product Model: HM-DDF-16

Components: Includes 64 L9 Double Female Connectors, 32 L9 3-way Y-Type Adapters

Cable Entry Method: Top entry, Bottom entry

Characteristic Impedance: 75Ω

Product Dimensions: 130×482×98.5mm (H×W×D)



Physical Characteristics

Rack: Standard 19-inch Rack Mountable

Rack Material: Cold-rolled steel plate

L9 Double Female Connector Parameters

Product Material: Gold-plated phosphor bronze

Insulation Resistance: >1000 MΩ

Return Loss: ≥18 dB

Shielding Effectiveness: ≥55 dB

Operating Temperature: -55℃~+155℃

Mechanical Durability: ≥500 times

Usage: Plug and Play

3-way Y-Type Adapter Parameters

Type: Two Male to One Female

Shell Material: Nickel-plated phosphor bronze

Return Loss: ≥18 dB

Inner Conductor Material: Gold-plated phosphor bronze

Shielding Effectiveness: ≥55 dB

Insulation Resistance: >1000 MΩ

Operating Temperature: -55℃~+155℃

Mechanical Durability: ≥500 times

Usage: Plug and Play

Environmental Adaptability

Operating Temperature: -5℃~+40℃

Operating Relative Humidity: ≤85% (+30℃)

Storage Temperature: -25℃~+55℃

Storage Relative Humidity: ≤75%

Atmospheric Pressure: 70KPa~106KPa