




Doc No: AES/UM/Spec/01.

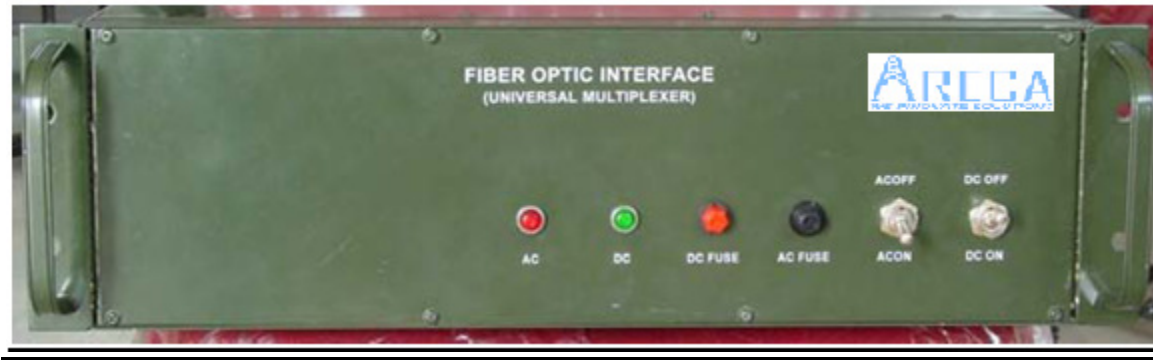
# Specification for Universal Multiplexer (UniMux)

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## Universal Multiplexer (UniMux)



**Universal Multiplexer is equipment for multiplexing various types of signals to onward transmission either by Fiber optic or by Radio means. While using fiber optic link it uses WDM technology on one single-mode fiber for duplex communication. For Radio communication, it provides a G.703 compliant (2.048Mbps) output. The UniMux is a modular system. User can configure the multiplexer based on the actual field requirements.**



Universal Multiplexer  
(UniMux)  
Technical Specifications

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## Specifications:

### Multiplexing Module

- Modular construction
- E1 standard Framing
- Suitable for Fiber/RF links
- WDM on single mode fiber
- 30 x 64k bearer channels

### Communication Modules

- Serial communication Module
  - Four channels
  - RS232/422 factory set
  - Optionally all hand-shaking signals carried
  - All inputs optically isolated
  - Occupies five (with handshake) or four (without handshake) bearer channels consecutively
  - First bearer channel user selectable
  - Module level baud rate selection (9600, 19200, 38400 and one other)
  - Channel level baud rate selection can be given for fixed configuration of multiplexer
- Digital I/O Module
  - 32 Command inputs
  - 32 Status outputs
  - All inputs optically isolated
  - TTL/RS422 level inputs
  - TTL outputs

- Occupies two consecutive bearer channels
- First bearer channel user selectable

### Voice Module

- Full duplex voice
- Three possible inputs
  - 600  $\Omega$  Two wire
  - Line-in
  - Mic
- Three simultaneous outputs
  - 600  $\Omega$  Two wire
  - Line-out
  - Speaker 100mW
- Occupies one bearer channel
- Bearer channel selectable

### Environmental

#### Temperature

- Operating : -20 to +55°C
- Storage : -30 to +65°C

#### Humidity

95% non-condensing

#### Damp Heat:

45°C at max. humidity

#### EMI/EMC:

Meets RS-03, CS-02, CS-06, ESD per MIL-STD-461C

**Random Vibration:**

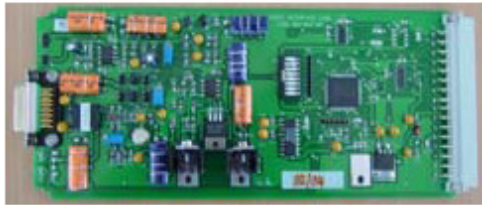
20 – 50 Hz 0.02 g<sup>2</sup>/Hz

50 – 500 Hz 0.001 g<sup>2</sup>/hz

All 3-axes, 30min/axis

**Enclosure:**

Standard 19" rack mountable EMI/EMC  
complaint 3U card frame



**Voice Module**



**Multiplexer Module**



**Digital I/O Module**




**Serial Interface Module**

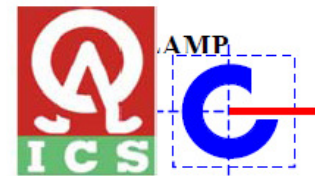


**Rear View**

**Other Products:**

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- PCI bus based GPS time synchroniser
- IRIG time code generator/reader
- PCI bus based IRIG time reader
- Voice-data communication system (1 Voice, 4 serial channels and 16 digital channels)
- Fibre Optic OLTE for telemetry systems up to 5 MBPS
- Redundant Voice data communication system
- Handheld cable tester
- Smartcard based access control and fare collection systems



ISO 9001 : 2000  
Reg.No:RQ91/1725

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