

Section I. Time Division Multiplexing Equipment

AN/FCC-98(V) Multiplexer Set

NSN: 5820-01-072-0560 (AN/FCC-98(V)1)
5820-01-086-6217 (AN/FCC-98(V)1X)
5820-01-074-5186 (AN/FCC-98(V)2)
5820-01-086-6218 (AN/FCC-98(V)2X)
5820-01-071-6403 (AN/FCC-98(V)3)
5820-01-087-1808 (AN/FCC-98(V)3X)

Reference: TM 11-5805-711-13 (AN/FCC-98(V)1 and (V)1X)
MWO 11-5805 -711-30-1 (AN/FCC-98(V)2, (V)2X, (V)3, and (V)3X)

General Information

The AN/FCC-98(V) uses analog-to-digital (AD) conversion and pulse code modulation (PCM) techniques to multiplex and demultiplex nominal 4 kHz analog VF channels for transmission over digital communications systems. It provides data interweaving by replacing VF channel modules with selected data interleaving modules. It features full-frame acquisition and monitoring and performs AD conversions and time division multiplexing (TDM). This set provides AD conversion on 3-, 4-, 8-, 12-, and 24-channel increments of 24-analog VF channels. Digital data is interweaved into an output bit stream in time slots assigned to replace VF channels. Demultiplexer circuit modules demultiplex received digital data and perform digital-to-analog conversion required to reconstruct the original analog signal. Digital data is extracted from the input data stream and distributed to digital channels which replace VF channels. Built-in test equipment (BITE) is an integral test module that measures, tests, and monitors signals in and out of channel modules and of operation of various internal circuits. It also is used to isolate faulty channel modules and for alignment of replaced modules. Monitor and alarm circuitry give audible and visible alarm indications when there is a loss of frame or timing or failure to receive or transmit data for a nominal 100 milliseconds or more.

Major Components

| | (V) | (V)1X | (V)2 | (V)2X | (V)3 | (V)3X |
|-------------------------------------|-----|-------|------|-------|------|-------|
| Electrical Equipment Cabinet: | | | | | | |
| CY-7703 | | | 1 | 1 | 1 | 1 |
| CY-7786 | 1 | 1 | | | | |
| Test Module TS-3693 | 1 | 1 | 1 | 1 | 1 | 1 |
| Transmit-Receive Data Timing Group: | | | | | | |
| OB-88 | | | 1 | 1 | | |
| OB-89 | | | | | 1 | 1 |
| OB-91 | 1 | 1 | | | | |
| Power Supply Group: | | | | | | |
| OP-124 (AC Power Group) | 1 | | 1 | | 1 | |
| OP-125 (DC Power Group) | | 1 | | 1 | | 1 |
| Voice Frequency Channel | 1 | 1 | 1 | 1 | 1 | 1 |
| Module PL-1411 | | | | | | |
| Module PL-1412* | | | | | | |
| Module PL-1413* | | | | | | |
| Module PL-1414* | | | | | | |

* Issued only if required for operations.

Technical Characteristics

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|------------------------------------|--|
| Power Requirement | 117 or 230 V AC \pm 10%, 47 to 420 Hz, single phase, or -44 to -56 V DC, +4 V DC, -8 V DC |
| Power Consumption | 130 W |
| Weight | 45.4 kg (100 lb) |
| Channels | 24, full duplex |
| Voice Frequency Response | 180 to 3450 Hz |

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