

Features:

- Economically Priced
- Highly Reliable
- Built in Multiplexer
- Powerful Built-In Diagnostics
- Modular Design
- Low Power Consumption with Internal Battery Back-Up
- Compact, Lightweight Design; Completely Self-Contained with 18, 27, 48 or 72 inch Antenna

System Options:

- Monitored Hot Stand-by (MHSB) Configurations
- Voice and Data Orderwire
- Digital Radio Repeaters
- Transportable Configurations

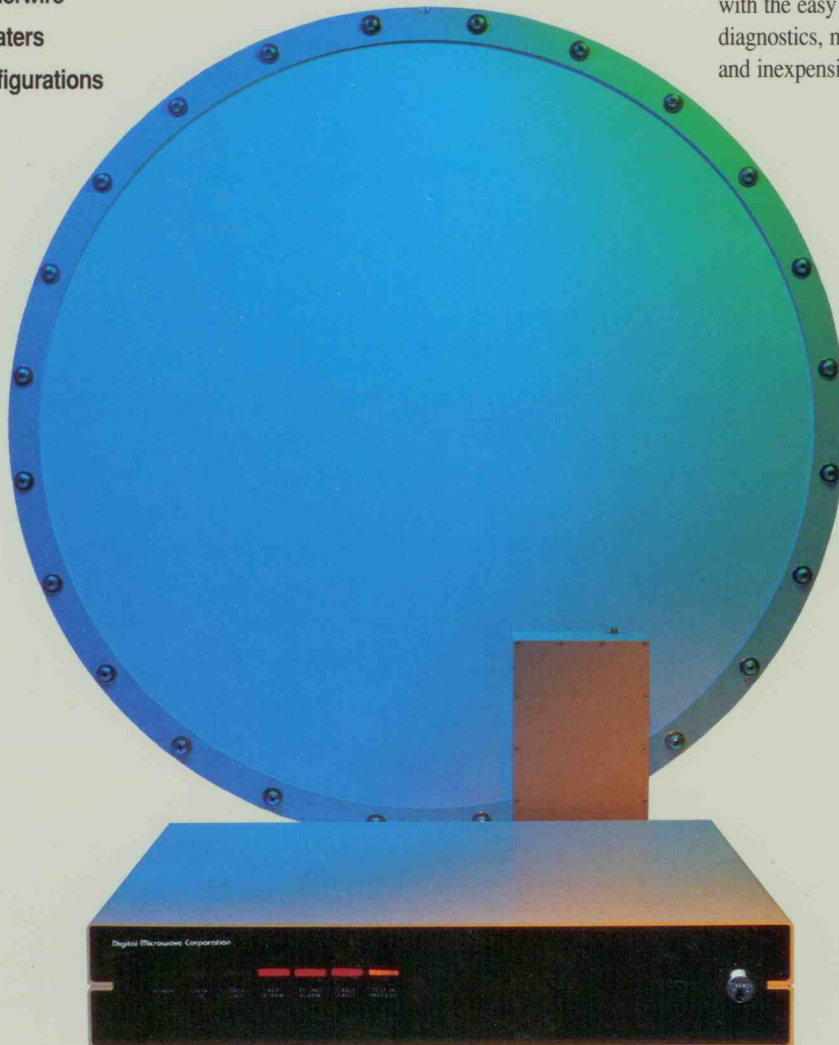
The DMC 23 Classic is designed for operation in the 23 GHz radio band and equipped with standard digital interfaces up to four (4) DS1 facilities, for a total of 96 PCM voice or data channels. The digital multiplexing function is entirely self-contained, eliminating the need for any external multiplex equipment.

This self-contained system is ideal for short-haul, point-to-point transmission of digitized voice, data and video traffic.

Ease of installation and light weight, portable design, make the DMC 23 Classic ideal for private business or "quick start" applications. Typical applications include PABX trunk lines, Local Area Networks (LANs), spur route feeders, local distribution radio, and emergency restoration.

A basic radio system consists of a modem, an RF Unit, and a single high performance Antenna. The Modem is designed for indoor installation, either on a desk top or in an equipment rack. The RF Unit mounts directly to the back of the antenna and is designed for all-weather operation. Specially designed high-performance parabolic antennas equipped with radomes are available in 18, 27, 48 and 72 inch diameters. The entire RF Unit/Antenna assembly can be located on a roof-top, tower or indoor behind an office window.

The simple design of the DMC 23 Classic Virtually eliminates the need for expensive test equipment. Aside from a few common hand tools, all you need to install this system is a voltmeter. Once the radio system is aligned, no further adjustments to the equipment will be needed. This, combined with the easy to use, extensive built-in diagnostics, makes the equipment simple and inexpensive to install and operate.



GENERAL

Operating Frequency Range*	21.20 GHz to 23.60 GHz	
Digital Line Rate	1.544 Mb/s	4 X 1.544 Mb/s
Interface	DSX-1	DSX-1
Voice Channel Capacity		
Standard	24	96
32 kb/s PCM	48	192
Input/Output Connection	Screw-Type Barrier Terminal	Screw-Type Barrier Terminal

ENVIRONMENTAL

Altitude	Up to 15,000 feet
Temperature Range	
RF Unit	-30°C to +55°C
Modem	0°C to +40°C
Relative Humidity	
RF Unit	Up to 100% (all weather operation)
Modem	95% at +40°C

TRANSMITTER SPECIFICATIONS

Power Output (at RF Unit antenna port)	+16 dBm (40 mW)
Frequency Stability	±0.02%

RECEIVER SPECIFICATIONS

Type	Dual Conversion	
Sensitivity (at RF Unit antenna port)	1.544 Mb/s	4 X 1.544 Mb/s
10 ⁻⁶ BER	-83 dBm	-76 dB
Unfaded BER	10 ⁻¹⁰ or better	
SYSTEM GAIN (Guaranteed Value)		
(Excluding Antennas)	1.544 Mb/s	4 x 1.544 Mb/s
10 ⁻⁶ BER	99 dB	92 dB
Additional Branching Losses (For Protected Terminals)	On Line	Standby
MHSB Xmtr	2.5 dB	2.5 dB
MHSB Rcvr	2.5 dB	15.5 dB

POWER REQUIREMENTS

Power	12 VDC negative ground, 25 Watts (Add 4 Watts for 4 X 1.544 Mb/s)
Backup Power	Note: System includes 110 VAC to 12 VDC wall transformer, UL approved. Other power sources (220 VAC, -24/48 VDC) optional. System has internal backup battery as standard equipment, providing up to one hour of operation during power outages.

MECHANICAL

Dimensions (HxWxD)	3.5" x 17.0" x 15.9"	7.0" x 4.3" x 3.6"
Weight	15.5 lbs	4 lbs

STATUS INDICATORS AND ALARMS

Visual Indicators	Power, Data In, Data Out, Test in Process, Test OK
Visual Alarms	BER Alarm, RF Unit Alarm, Cable Fault
Summed Alarm	Form C dry relay contact provided on rear panel.

FCC INFORMATION

FCC Identifier	DYH6RMDMC23-02
FCC Rules	Part 21 and Part 94
Frequency Range	21,200 to 23,600 MHz
Emission Designator	25M0A7W
Frequency Tolerance	±0.03%
Maximum Power Output	0.100 Watt
Minimum Power Output	0.040 Watt
Typical Power Output	0.050 Watt

ANTENNA CHARACTERISTICS

Diameter	18 inch	27 inch	48 inch
Gain (at 22.4 GHz including Radome)	38.5 dBi	41.5 dBi	46.5 dBi
RF Connector	SMA (Coax) or WR-42 (Waveguide)		
Polarization	Field Adjustable, Vertical or Horizontal		
Azimuth Alignment	Includes Coarse and Fine Adjustment		
Elevation Alignment	Includes Coarse and Fine Adjustment		

* Consult DMC Sales Representative for Frequency Plan Availability.