

# MICOM MARATHON<sup>®</sup> 2K and 2K Plus

## Integration Multiplexers

The Marathon 2K and 2K Plus are members of a full family of industry-leading Integration Multiplexers offering cost-effective solutions for small- to enterprise-size networks.



Remote Office Legacy Data, Voice/Fax and LAN

## Features

- Integrates remote office legacy data with LAN and voice/fax traffic over a common private leased line, ISDN, or private and public frame relay links for substantial cost savings
- Locally-attached frame relay devices can transparently pass traffic to the frame relay network, protecting your capital equipment investment
- Superior 8 Kbps G.729 ClearVoice™ technology ensures toll-quality telephone conversations while consuming minimal bandwidth
- Asynchronous port switching and connection allow remote users to easily share async resources
- Allows cost-effective time-of-day WAN access to reduce communications costs
- Modular design supports optional Integration Router Module, Integral 10Base-T Hub, high density voice compression, voice/fax and legacy data expansion
- Optional Dual-Bank FlashPak™ simplifies network management while reducing disruption during software upgrades
- Supports remote terminal and PC-based NETMan™ network management
- Three-year hardware warranty

# Overview

The Marathon 2K features a flexible, three-slot modular design that provides up to 29 data channels for asynchronous connectivity applications. The Marathon 2K *Plus* features a robust, five-slot modular design that provides up to 41 asynchronous data channels to meet higher-density legacy data requirements.

Both models utilize either private leased lines or private and public frame relay services for cost-effective networking. These models also support MICOM's™ *MicroBand* ATM cell relay technology which allows optimal throughput for integrated communications traffic over private leased lines. In *MicroBand* ATM applications, networking resiliency can be enhanced using a wide-area backup link over dial-up or ISDN connections.

For public and private frame relay access, the Marathon 2K and 2K *Plus* allow integrated communications traffic to travel over a common Permanent Virtual Circuit (PVC) to its destination. Multiple physical WAN links can be configured to segment traffic for access to multiple public frame relay carriers. Both models also allow locally-attached frame relay devices, such as routers that support RFC 1490 encapsulation, token ring and SNA applications, to transparently pass traffic to the public or private frame relay network.

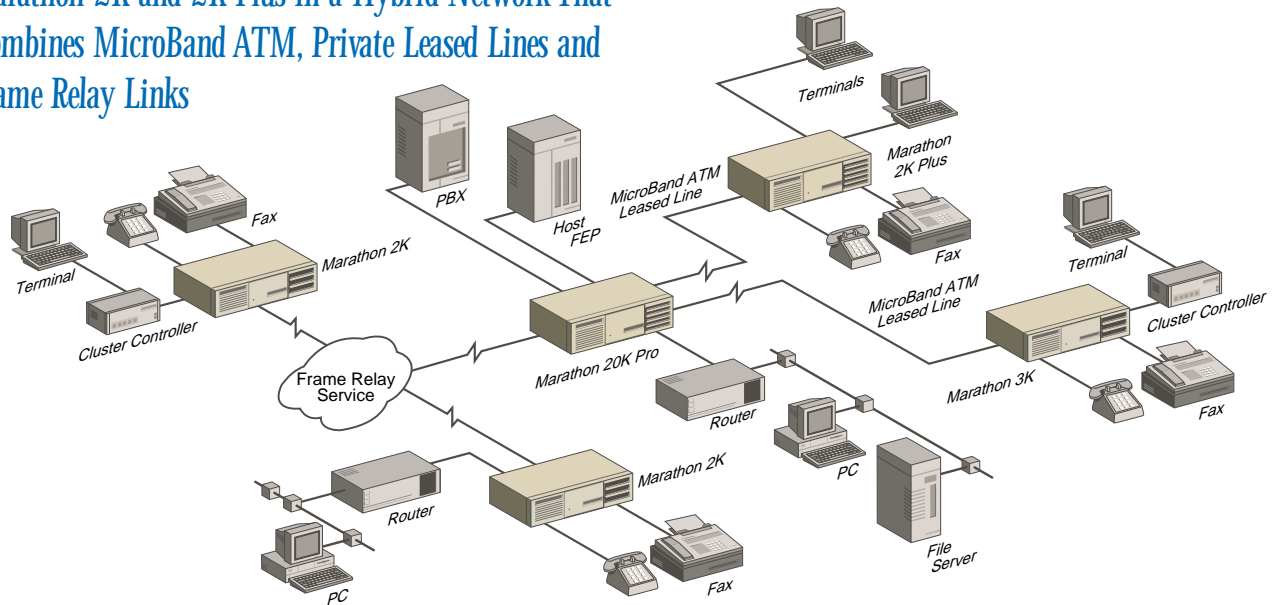
The Marathon 2K and 2K *Plus* support ClearVoice technology, based on the International Telecommunications Union's (ITU) G.729 standard for WAN voice compression. A new, more powerful digital signal processor and advanced algorithm provide toll-quality voice at an 8 Kbps compression rate. Silence suppression and other bandwidth management efficiencies reduce the average consumed bandwidth by 50% or more.

The Marathon 2K and 2K *Plus* handle virtually all legacy data protocols, including DEC VT100, ENQ/ACK and SNA/SDLC. For LAN traffic, an optional Integration Router Module provides robust LAN bridging and routing capabilities. High-speed legacy data and LAN compression provide optimal bandwidth efficiency.

The Marathon 2K and 2K *Plus* integrate remote office legacy data with voice/fax and LAN traffic for dramatic cost savings.

# Specifications

## Marathon 2K and 2K Plus in a Hybrid Network That Combines MicroBand ATM, Private Leased Lines and Frame Relay Links



### COMPOSITE WAN LINKS

Primary (Port A1):

Female DB-25, RS232; configured as DCE;  
serial synchronous; internal/external clock

Secondary Backup Link (Port A2)

Female DB-25, RS232; configured as DCE;  
serial synchronous; internal/external clock

### MicroBand ATM LEASED LINE ACCESS

1 WAN link supporting access rates from 2400 bps  
to 64 Kbps

### FRAME RELAY ACCESS (Port A1 and Port A2)

2 physical WAN links configurable up to 32 PVCs\*  
Access Rates: 56 Kbps to 640 Kbps  
Maximum Sustained Throughput: Up to 384 Kbps

Topologies Supported:

String, Star, Delta

### VOICE/FAX CHANNELS

Voice/fax Expansion Models Supported: TUVN,  
VM, IVN and CVM, including fax switch option

Maximum Voice/Fax Channels supported: 12\*\*

### COMPATIBLE MICOM PRODUCTS

All MICOM Marathon products; link-compatible with  
MICOM NetRunner® and STADIA® products

### DATA CHANNELS

Female DB-25; full duplex; configured as DCE

2K: Maximum Async Data Channels: 29

2K Plus: Maximum Async Data Channels: 41

Maximum Sync Data Channels: 1 (Port A2)

Data Expansion Models Supported:

5000E/6, 5000E/6A, 5000E/12, 5000E/12LD

Data Rates:

Sync/Async up to 38.4 Kbps

Flow Control:

EIA (RTS/CTS, DTR/DSR); XON/XOFF;  
HP ENQ/ACK; Tandem; Wang, and Data General

Protocols Supported:

Most standard async and sync protocols

### OPTIONAL MODULES

Integration Router Module (IRM)

Integral Hub Module (IHM)

### SOFTWARE UPDATES

Standard: FEATUREPAK™ cartridge

Optional: Dual-Bank FlashPak supporting network  
code download

\* Application dependent

\*\* Using Digital Direct Series

# Specifications

**Expansion Module Slots**

**LAN**  
*Integration Router Module;*  
 Maximum: 1  
*Integral Hub Module;*  
 Maximum: 2

**Async Data**  
*6 Ch./12Ch.Async*  
 Expansion Modules;  
 Maximum: 2 (2K)  
 Maximum: 3 (2K Plus)

**Voice**  
*VM, TUVM and CVM,*  
 including fax switch option;  
 Maximum: 4 voice channels  
 per base unit

*Digital Direct Series;*  
 Maximum: 12 voice channels

**Marathon Model 2K Plus (5-Slot Chassis)**

64K	NA	NA	<i>MicroBand ATM</i> <i>Frame Relay</i> <i>Sync</i> <i>Async</i> <i>Backup (MicroBand ATM)</i>
F-T1/E1	F-T1/E1	NA	
NA	38.4K	38.4K	
NA	38.4K	38.4K	
NA	64K	NA	

(Application Dependent)

## DIAGNOSTICS

Startup, Local/Remote Channel Loopbacks,  
 Local/Remote Composite Loopbacks

## MANAGEMENT OPTIONS

From MICOM's PC-based NETMan network  
 management system; a local/remote terminal on  
 WAN

## PHYSICAL DIMENSIONS

Model 2K (3-Slot):	Model 2K Plus (5-Slot):
Width: 17.4 in (44.2 cm)	17.4 in (44.2 cm)
Height: 4.4 in (11.2 cm)	6.5 in (16.5 cm)
Depth: 11.8 in (30 cm)	12 in (30.5 cm)
Weight: 13 lbs (5.9 kg)	22 lbs (10 kg)

## POWER REQUIREMENTS

100-240 Vac -5%, +10%, 1-2 amps;  
 47 Hz to 63 Hz, 88 watts maximum (2K Chassis)  
 47 Hz to 63 Hz, 110 watts maximum (2K Plus Chassis)

## OPERATING ENVIRONMENT

Temperature:  
 32° to 122° F (0° to 50° C) operating  
 -40° to +158° F (-40° to +70° C) storage

Humidity:  
 10% to 90% relative humidity (noncondensing) operating  
 0% to 95% relative humidity (noncondensing) storage

## AGENCY COMPLIANCE


FCC Part 15 Level A, FCC Part 68,  
 C.R.C., c. 1374  
 EN55022 (CISPR 22 Level B)  
 EN50082-1:1992 (contact MICOM for  
 IEC801/EN55024 compliances)  
 UL 1950:1993  
 CSA Standard C22.2 No. 950:1993  
 IEC 950:1991+A1:1992  
 TUV: EN60950:1992, EN41003:1993,  
 BABT/BS-340  
 EU Declarations of Conformity  
 ISO 9001 Certified



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