

MM-2431P-2S

Heavy Duty Industrial Purpose,
Upto 2400bps 2W PSTN(Dial-Up) Line,
Pack-Modem™

FEATURES

General Features

- Highly integrated compact sized industrial modem
- Fully compatible with ITU-T V.22bis / V.22 / V.21 and BELL 212A / BELL 103
- 2Wire PSTN(Dial-Up) line, full duplex operation
- 300bps to 2400bps data speed
- AT Command mode
- Async. Serial data mode
- Test function (loop-back test via AT command.)

Special Features

- External reset input pin for modem reset.
(Modem hardware reset with TTL input signal.)
- 3-stage LINE surge protection structure
- ±15kV (IEC1000) ESD protected DTE interface
- DC Power input surge protection(TVSS)
- Single DC power operation
(8-30V or +5V single DC power input)
- 1U Shelf / Chassis direct mountable (RTU)
- MORU standard [SR-3U-PK] shelf mountable.
(3U-84HP/16ch.Sub-rack with DUAL Power.)
- Flame Retardant case (난연성 외함 적용)

SPECIFICATIONS

Compatibility

| | |
|----------------------|----------------|
| ITU-T V.22bis | 2.4Kbps (QAM) |
| ITU-T V.22 & Bell212 | 1.2Kbps (DPSK) |
| ITU-T V.21 & Bell103 | 300bps (FSK) |

Data Format

| | |
|--------------------------|------------------------|
| Asynchronous Serial Data | |
| Data length | : 8/9bit (with parity) |
| Parity mode | : even/odd/none |



DTE Interface

EIA RS-232C, ITU-T V.24/V.28

LINE Requirement

2wire wet dial-up line only (48 or 24V leaded)

Transmit Level : -10dBm (@ 600 ohm)

Receive Dynamic Level

: -10 to -43dBm

Flow Control

: RTS / CTS

Power

Single DC Source

:+5V, 200mA (max.) (via AUX Conn.)

:+10 to +30V wide rainge DC power input

(via DC-IN JACK ; 180mA (max.))

*Optional AC-Adapter for AC Source available.

Physical Dimensions

: 122W x 46D x 36H (mm)

Weight

: 0.3 (kg) max.

Environmental

Temperature : -34°C to +74 °C (Operating)

: -40 to 80 °C (Storage)

Relative humidity

: up to 95% (non-condensing)

DESCRIPTION

PACK-MODEM™ Series

PACK-MODEM™ 시리즈는 DCS, SCADA, ITS, TCS, CTC, General TMTc 등 산업용 제어 시스템 운용 현장에서, 다년간 통신 성능 및 신뢰성 향상을 위하여 노력하고 경험한 [MORU Industrial Systems]의 창의적 기술과 Know-How를 집약하여 탄생된, **새로운 개념의 Industrial Communication Equipment** 입니다.

특히 낙뢰, Surge, 열악한 온/습도 환경, AC 누설 전류 등으로 인한 수많은 Trouble, 그리고 기구적 거치 공간 및 거치 방법의 문제 등을 해결하기 위하여, 기존 일반용 통신장치의 설계 관행 일체를 탈피하고, **다만 산업용 시스템의 현장상황에 근거한 Concept을 새로이 정립하여 설계한 [제어 전용 모뎀] 시리즈** 입니다.

INTERFACE PIN CONFIG.

DTE Port pin config. (RS232:8P-Modular)

| | NAME | DESCRIPTION |
|---|------|-----------------------------|
| 1 | DCD | Data Carry Detect (RS232) |
| 2 | RXD | Receive Data (RS232) |
| 3 | TXD | Transmit Data (RS232) |
| 4 | DTR | Data Terminal Ready (RS232) |
| 5 | GND | Signal Ground |
| 6 | DSR | Data Set Ready (RS232) |
| 7 | RTS | Request to Send (RS232) |
| 8 | CTS | Clear to Send (RS232) |

AUX Port pin config. (MISC.:8P-Modular)

| | NAME | DESCRIPTION |
|---|-------|------------------------------------|
| 1 | XVCC | External Vcc (+5V DC, 200mA max.) |
| 2 | - | - |
| 3 | - | - |
| 4 | - | - |
| 5 | GND | Signal Ground |
| 6 | - | - |
| 7 | /XRST | External Reset Input (TTL) |
| 8 | RI | Ring Indicator (RS232) |

LINE Input Conn. config.

(6P / 5mm pitch non-screw T/B)

| | NAME | DESCRIPTION |
|---|-----------|----------------|
| 1 | LINE-TIP | LINE A (선로접속) |
| 2 | LINE-RING | LINE B (선로접속) |
| 3 | TEL-TIP | TEL A (전화기 접속) |

| | | |
|---|----------|----------------|
| 4 | TEL-RING | TEL B (전화기 접속) |
| 5 | N.C. | - |
| 6 | F.G. | FRAME GROUND |

DC-IN Jack config. (2P DC JACK)

| | NAME | DESCRIPTION |
|---|---------------------------|-------------|
| 1 | +10 ~ 30V DC (180mA max.) | OUTSIDE |
| 2 | GND | CENTER PIN |

OTHER PACK-MODEM™ Solutions

SR-3U-PK (MORU Standard PACK-SHELF)

- 중앙장치용 Sub-rack (for Pack Modem)
- 3U/84HP EURO 표준 기구 규격 준용. (depth : 220mm)
- DUAL POWER System (free vtg. AC)
- 2 Pack-Modem / 3U-8HP Card.
- 16 Pack-Modem / 3U-84HP Sub-rack.



ORDER INFORMATION

| # | MODEL NAME | SPECIFICATION | Availability |
|---|----------------------------------|---|--------------|
| 1 | SR-3U-PK | Modem Subrack for PACK Modem with Dual Power | NOW |
| 2 | MRMB-3U2C-PK-A | Modem base board for PACK Modem (3U-8HP/2CH.) | NOW |
| 3 | Interface Cable (for sub-rack) | OEM spec. RS232 Interface cable | order made |
| 4 | MM-2431P-2S | 2400bps dial-up Pack Modem | NOW |
| 5 | AC Adapter (12V, 300mA) | AC Adapter for Pack Modem | NOW |
| 6 | Interface Cable (for pack modem) | OEM spec. RS232 Interface cable | order made |

* 성능 향상을 위하여, 예고 없이 제품 사양이 변경될 수 있습니다.

