



### DESCRIPTION

The IFS DECT/DECR3000 series contact mapping transmitter and receiver provides transmission of up to eight independent contact closures over Ethernet electrical 10/100 TX or 100 FX optical fiber. The DECT/DECR3000 utilizes microprocessor-based logic for exceptionally robust communications channel redundancy. Models within this series are available for use with electrical RJ45, multimode or singlemode optical fiber. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Each module incorporates power and individual status indicating LED's for monitoring confirmation of contact closure of each of the eight channels. The modules are available in stand-alone only.

### APPLICATION EXAMPLES

- Alarm Event Triggering
- Building Automation and Environmental Control Systems
- Fire & Alarm Systems
- Lane/Gate Control
- PIR Signal Transmission

### FEATURES

- Transmits Up to Eight Contact Closures Over Fiber or CAT 5.
- Web Based Configuration
- Eight Channel Point-to-Point Transmission Architecture
- Power and Eight Individual Channel Status LED Indicators
- Eight SPST Reed Relays (with individual indicators)
- Designed to Meet the Requirements of NEMA TS-1/TS-2 & Caltrans Specifications (Temperature/Humidity, Shock/Vibration, and Voltage Transient Protection) for Traffic Control Equipment.
- Loss of Carrier Relay for Alarm Notifications
- Relay Contact Rating: 200 VDC, 0.5 Amps, Normally Open
- No In-field Electrical or Optical Adjustments Required
- Automatic Resettable Solid-State Current Limiters
- Hot-Swappable Rack Modules
- Distances up to 28 Miles (45 km)
- Comprehensive Lifetime Warranty



Available at: **www.ifs.com**

- A & E Specifications, (CSI)
- AutoCAD Drawings
- Operation Manuals
- Technical Bulletins

### ORDERING INFORMATION

PART NUMBER		DESCRIPTION	FIBERS REQUIRED	OPTICAL PWR BUDGET	MAX. DISTANCE*
ELECTRICAL	DECT3000	10/100 electrical Tx	NA	NA	300 ft. (100 m)
	DECR3000	10/100 electrical Rx			
MULTIMODE 62.5/125µm**	DECT3020	Contact Mapping Transmitter (1310 nm)	2	10 dB	1.2 miles (2 km)
	DECR3020	Contact Mapping Receiver (1310 nm)			
SINGLEMODE 9/125µm	DECT3030	Contact Mapping Transmitter (1310 nm)	2	15 dB	28 miles (45 km)
	DECR3030	Contact Mapping Receiver (1310 nm)			
ACCESSORIES♦	PS-12VDC 12 Volt DC Plug-in Power Supply (Included)				
	PS-12VDC-230 12 Volt DC Plug-in Power Supply, 230 VAC Input (Included if specified at time of order)				
OPTIONS	Add ‘-R3’ to Model Number for R3 Rack Mount (Requires R3 Rack purchased separately)				
	Add ‘-C’ for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)				

\* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. \*\* For 50/125 Fiber, subtract 4 dB from Optical Power Budget. ♦ All accessories are third party manufactured.

## SPECIFICATIONS

### DATA

Input/Output Channels	8
Contacts:	200 VDC, 0.5 amp, 12 watts. Normally open/closed
Response Time:	25 msec maximum, typical

### WAVELENGTH

DECT3010, DECR3010:	850 nm, Multimode
DECT3020, DECR3020:	1310 nm, Multimode
DECT3030, DECR3030:	1310 nm, Singlemode

### NUMBER OF FIBERS

2

### CONNECTORS

Optical:	SC
Data:	RJ45
Power:	Terminal Plug with Screw Clamps

### ELECTRICAL & MECHANICAL

Power:	11 - 31 VDC @ 350 mA
Surface Mount:	From Rack
Rack:	2
Number of Rack Slots:	Automatic Resettable Solid-State Current Limiters
Current Protection:	Meets IPC Standard
Circuit Board:	Size (in./ cm.) (LxWxH):
Surface Mount:	7.0 x 4.9 x 2.0 in., 17.8 x 12.5 x 5.0 cm.
Rack Mount:	7.7 x 5.0 x 2.0 in., 17.8 x 12.5 x 5.0 cm.
Shipping Weight:	< 2 lbs./0.9 kg

### ENVIRONMENTAL

MTBF:	>100,000 hours
Operating Temp:	-40° C to +74° C*
Storage Temp:	-40° C to +85° C*
Relative Humidity:	0% to 95% (non-condensing)†

† May be extended to condensation conditions by adding suffix '-C' to model number for conformal coating.

### AGENCY COMPLIANCE

**FCC** PART 15 COMPLIANT



### MADE IN THE USA

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

## OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSMITTER		RECEIVER		OPTICAL PWR BUDGET	MAX. DISTANCE*
		MODEL	OUTPUT	MODEL	SENSITIVITY		
Electrical	NA	DECT3000	NA	DECR3000	NA	NA	300 ft. (100 m)
Multimode 62.5/125µm**	1310 nm	DECT3020	20 µw (-17 dBm)	DECR3020	1 µw (-30 dBm)	10 dB	1.2 miles (2 km)
Singlemode 9/125µm		DECT3030	25 µw (-16 dBm)	DECR3030		15 dB	28 miles (45 km)

\* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. \*\* For 50/125 Fiber, subtract 4 dB from Optical Power Budget.

## SYSTEM DESIGN

