

Fibre Optic Detector

TTL Output



The HFD3023-500 series is a direct coupled optical receiver designed for short distance 850nm fibre optic systems. The receiver contains a monolithic IC with an integral photodiode and amplification circuit, and an open collector Schottky output. The output allows it to be directly interfaced with standard TTI (Transistor-Transistor Logic) circuits.

Honeywell

NEW

Description
5Mb Direct Coupled Receiver
SMA Single Hole 5Mb Direct Coupled Receiver
SMA PCB Mount 5Mb Direct Coupled Receiver
SMA 4 Hole 5Mb Direct Coupled Receiver
ST PCB Mount 5Mb Direct Coupled Receiver

Mfrs. List No.	Order Code
HFD3023-500	108-2182
HFD3023-500-AAA	108-2183
HFD3023-500-ABA	108-2184
HFD3023-500-BAA	108-2185
HFD3023-500-BBA	108-2186

419438

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
HFD3023-500	108-2182	1,336.00	1,084.00	1,029.00	1,026.00
HFD3023-500-AAA	108-2183	2,511.00	2,014.00	1,816.00	--
HFD3023-500-ABA	108-2184	2,511.00	2,014.00	1,816.00	--
HFD3023-500-BAA	108-2185	2,511.00	2,014.00	1,816.00	--
HFD3023-500-BBA	108-2186	2,511.00	2,014.00	1,816.00	--

PIN Diode receiver

ST PCB Mounting



The HFD3065-002/XBA PIN Photodiode is designed for use in high speed fibre optic receivers. It has a large area detector, providing efficient response to 50 - 100 µm diameter fibres at wavelengths of 750 to 950 nanometers. The case is electrically isolated from the anode and cathode terminals to enhance the EMI/RFI shielding thus increasing the sensitivity and speed characteristics. Works with emitters, HFE4080-321/XBA - Order Code 655089 or HFE4083-322/XBA - Order Code 7538910.

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Body overall, H=9.7, W=12.7, L=31.7, Lead Length=10mm. 2 holes drilled and tapped, 2.56 UNC-2B, Fixing centres=9.5mm

- Low capacitance
- High speed
- High responsivity
- Electrically isolated case

Absolute max. ratings:
Reverse voltage 50V
Forward voltage 1.5V

Electro optical characteristics	Min.	Typ.	Max.
Flux responsivity	0.52	0.55	
Active area		1.0mm ²	
Dark current		1.0nA	5 nA
Response time (10-90% & 90-10%)		3.5 ns	
Capacitance		2.0pF VR=0.3, 5pF VR=20V	

345949

Mfrs. List No.	Order Code	Price Each			
		1+	10+	100+	+
HFD3065-002/XBA	120-1185	2,123.00	1,797.00	1,668.00	--

Single Fibre Duplex Modules



A pair of dual wavelength fibre duplex modules that allow full duplex communication over a single fibre link. They may also be used where a dual fibre solution is neither possible nor economical. Alternatively, one duplex module may be used to double the capacity of an existing system. Each duplex module consists of one on-axis port and one off axis port. These devices are coupled to the single fibre via integral lenses and a 3 dB wavelength differentiating mirror within the duplex module body. In this configuration the two duplex modules can communicate simultaneously and independently of each other.

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- Full duplex over single fibre
- DC to 160 MHz link bandwidth
- Link budgets of 2 km (1.24 miles) or greater
- 40 dB isolation
- Low profile ST housing

The two devices listed are in the following configurations:

HOD4090 - 111/BBA (Order Code 7538871)
850 nm VCSEL laser V_{rev} Laser=10V (typ) Threshold current=3.6mA (typ) V_{FWD}=1.8V (typ)
1300 nm PIN diode V_{rev}=50V Dark current=2.0nA (typ) Capacitance=1.5 pF (typ)

HOD4090 - 111/BBA (Order Code 7538871)
1300 nm laser V_{rev} Photo Diode=10V V_{FWD} - Photo Diode=1mA V_{FWD}=1.2V (typ)
850 nm PIN diode V_{rev}=50V Dark current=0.05nA (typ) Capacitance=1.5 pF (typ)

345953

Mfrs. List No.	Order Code	Price Each			
		1+	10+	+	+
HOD4090-111/BBA	753-8871	12,030.00	10,180.00	--	--
HOD2236-111/BBA	753-8880	13,193.00	11,162.00	--	--

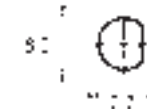
Fibre Optics - Universal System

SMA Emitters and Detectors



FIBRE DATA

Panel cut-out



Single hole type

Panel, Rear Fitting
Body overall L=20.6
Nut=11 A/F

PCB
Body overall L=16.3, W=12.7
2 holes drilled
and tapped 2.56 UNC

PCB type recommended panel hole size=2.3 dia. 2 holes on 9.5 fixing centres. Lead length=21

Connections: Emitters: Red sleeve - Anode. Detectors: Black sleeve - Anode

Universal 9mm FSMA emitters and detectors are suitable for use with both 1mm polymer fibre and 200/250µm glass fibre cables. This enables low cost polymer cable to be used over shorter distances with the same emitters and detectors as used with 200/250µm cable over longer distances.

The PIN diode photodetectors have 1mm square active area permitting collection of light with high efficiency for all fibres up to 1000µm (1mm) core size, and can be used for frequencies up to and in excess of 100MHz. The spectral range of sensitivity is 400 to 1100nm.

The emitters and detectors are both available in a choice of mounting styles with SMA connection. All have full epoxy primary encapsulation.

206491

Mounting	Order Code	Price Each		
		1+	10+	25+
Emitters				
Panel, rear fitting	120-8870	1,485.00	1,068.00	1,040.00
PCB	120-8872	1,485.00	1,068.00	1,040.00
Detectors				
Panel, rear fitting	120-8873	1,195.00	860.00	840.00
PCB	120-8874	1,195.00	860.00	840.00

Fibre Optic Terminated Optical Leads

50/125µm glass, 200/230µm glass, 1mm polymer

FIBRE DATA



A range of fibre optical leads, terminated with 9mm FSMA connectors compatible with FSMA transmitters and receivers.

Type	Core Dia.	Cladding Dia.	Cladding Dia.
50/125µm glass	0.050	0.125	2.5
200/230µm glass	0.200	0.250	3.2
1mm polymer	1.0	—	2.2

206490

Length	Order Code	Price Each			
		1+	5+	10+	25+
50/125µm Glass Fibre					
2m	120-8865	5,248.00	4,682.00	3,849.00	3,189.00
5m	120-8866	5,551.00	3,705.00	3,528.00	3,374.00
10m	120-8863	6,055.00	4,042.00	3,848.00	3,680.00
20m	120-8864	7,319.00	4,886.00	4,651.00	4,449.00
200/230µm Glass Fibre					
2m	120-8907	3,822.00	3,008.00	2,863.00	2,739.00
5m	120-8908	4,439.00	3,509.00	3,341.00	3,196.00
10m	120-8909	5,438.00	4,296.00	4,090.00	3,912.00
1mm Polymer					
1m	120-8867	2,098.00	1,884.00	1,241.00	1,075.00
2m	120-8868	2,306.00	2,072.00	1,896.00	1,452.00
5m	120-8869	2,604.00	2,338.00	2,143.00	1,642.00

Optoelectronics, Indicators, Lamps & Displays

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Compliant Non-compliant
RoHS Limited stock - RoHS replacement available