

# HFD3200 and HFE4200 Series

## ST<sup>®</sup> Fiber-DIP (ST-FD) LEDs and Integrated Receivers

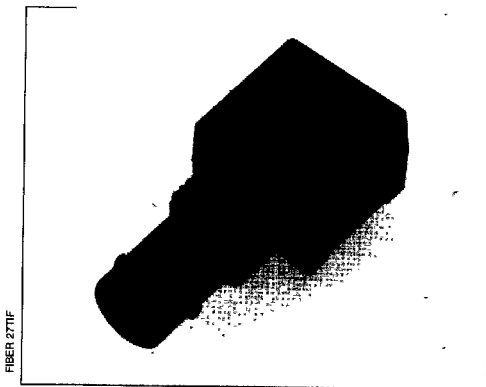
### FEATURES

- Cost effective plastic PCB mountable package
- Operates with 100/140, 85/125, 62.5/125, and 50/125 micron fiber cable sizes
- Choices of LED output power
- High optical efficiency
- Optical port interfaces directly with standard ST<sup>®</sup> connectors
- Wide operating temperature range: -40°C to +100°C

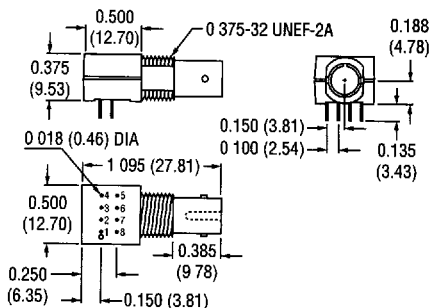
### DESCRIPTION

The Fiber-DIP devices consist of a Base Part mounted in a Plastic ST<sup>®</sup> Fiber-DIP connector. LEDs and receivers are assembled to insure the best power output or responsivity for each dash number. For more information on the Base Part refer to the relevant pages. Specifications are guaranteed limits.

HONEYWELL INC/ MICRO-



### OUTLINE DIMENSIONS in inches (mm)



FIBER-DIP DIM

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## LEDs

Part Number	Description	Base Part	Coupled Power Into Fiber				t <sub>r</sub> , t <sub>f</sub> ns	Pinout							
			μW	dBm	I <sub>f</sub> mA	Core (4)		1	2	3	4	5	6	7	8
HFE4211 -012	Std. LED Fiber-DIP package	HFE4020 or HFE4070	3	-25	50	50	10	N	A	K	N	N	A	A	N
-013			6	-22	50	50	10	N	A	K	N	N	A	A	N
-014			10	-20	50	50	10	N	A	K	N	N	A	A	N
-015			15	-18	50	50	10	N	A	K	N	N	A	A	N
-016			25	-16	50	50	10	N	A	K	N	N	A	A	N
HFE4213 -022	High speed LED Fiber-DIP package	HFE4073	3	-25	50	50	6	N	A	K	N	N	A	A	N
-023			6	-22	50	50	6	N	A	K	N	N	A	A	N
-024			10	-20	50	50	6	N	A	K	N	N	A	A	N
-025			15	-18	50	50	6	N	A	K	N	N	A	A	N
HFE4213 -032	Highest speed LED Fiber-DIP package	HFE4073	3	-25	50	50	3.5	N	A	K	N	N	A	A	N
-033			6	-22	50	50	3.5	N	A	K	N	N	A	A	N
-034			10	-20	50	50	3.5	N	A	K	N	N	A	A	N
-035			15	-18	50	50	3.5	N	A	K	N	N	A	A	N

## DIGITAL INTEGRATED RECEIVERS (TTL Output, V<sub>CC</sub> = 5.0 V)

Part Number	Description	Base Part	Sensitivity (1)		I <sub>CC</sub> mA	PWD ns (3)	Output (2)	Pinout							
			μW	dBm				1	2	3	4	5	6	7	8
HFD3212 -002	Differentiating, 10 Mbps	HFD3020-002	0.6	-32	20	50	Inv.	N	V	N	N	N	O	G	N
-003	Differentiating, 10 Mbps	HFD3020-002	0.6	-32	20	50	Inv.	N	V	G	N	N	O	G	N
HFD3213 -002	Direct coupled, 5 Mbps	HFD3023-002	2.8	-25	15	60	Inv.	N	V	G	N	N	O	G	N

## ANALOG INTEGRATED RECEIVERS (V<sub>CC</sub> = 5.0 V)

Part Number	Description	Base Part	Responsivity (1) mV/μW	Bandwidth (Typical) MHz	Output (RMS) Noise	I <sub>CC</sub> mA	Pinout							
							1	2	3	4	5	6	7	8
HFD3216 -002	Linear output	HFD3038-002	5	125	0.53 mV	15 <sup>(5)</sup>	N	O	E	N	N	V	E	N

### Pinout Definition

A = Anode	I = Input	O = Output
C = Capacitor	K = Cathode	V = +V (V <sub>CC</sub> )
G = Ground (case)	N = Not used	E = -V (V <sub>EE</sub> )

### Notes

1. Receiver sensitivity and responsivity are measured using a 100/140 micron fiber optic cable.
2. Inv = Output is low (<0.4 V) when light is striking the device
3. Pulse Width Distortion is measured at 1.5 V with an input signal of 100 μW, 2.5 MHz, 50% duty cycle
4. Fiber Core is 50/125 micron (50).
5. I<sub>EE</sub>.