

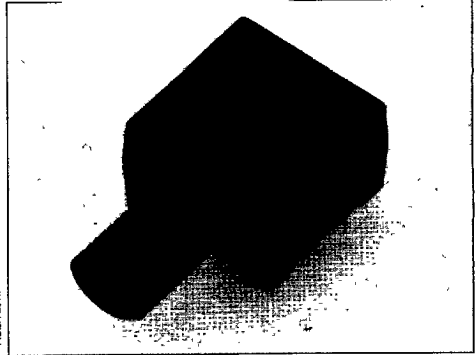
# HFD3400 and HFE4400 Series

SMA Fiber-DIP (SMA-FD) LEDs and Integrated Receivers

HONEYWELL INC/ MICRO

**FEATURES**

- Cost effective plastic PCB mountable package
- Operates with 100/140, 85/125, and 50/125 micron fiber cable sizes
- Choices of LED output power
- High optical efficiency
- Optical port interfaces directly with standard FSMA connectors (905 and 906)
- Wide operating temperature range: -40°C to +100°C

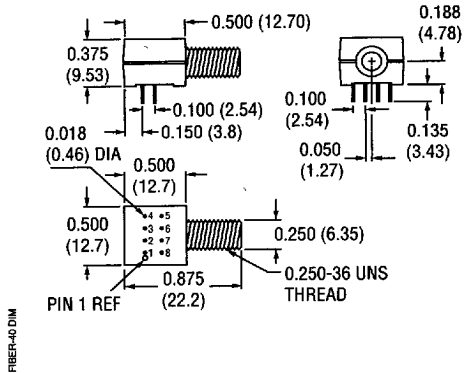


FIBER 2811F

**DESCRIPTION**

The Fiber-DIP devices consist of a Base Part mounted in a Plastic SMA 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.

OUTLINE DIMENSIONS in inches (mm)



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## SMA Fiber-DIP (SMA-FD) LEDs and Integrated Receivers

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### LEDs

Part Number	Description	Base Part	Coupled Power Into Fiber				$t_r, t_{rs}$	Pinout							
			$\mu$ W	dBm	$I_f$ mA	Core (4)		1	2	3	4	5	6	7	8
HFE4401 -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
HFE4403 -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
HFE4403 -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, $V_{CC} = 5.0$ V)

Part Number	Description	Base Part	Sensitivity (1)		$I_{CC}$ mA	PWD ns (3)	Output (2)	Pinout							
			$\mu$ W	dBm				1	2	3	4	5	6	7	8
HFD3402 -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
HFD3403 -002	Direct coupled, 5 Mbps	HFD3023-002	2.8	-25	15	60	Inv.	N	V	G	N	N	O	G	N

### ANALOG INTEGRATED RECEIVERS ( $V_{CC} = 5.0$ V)

Part Number	Description	Base Part	Responsivity (1) mV/ $\mu$ W	Bandwidth (Typical) MHz	Output (RMS) Noise	$I_{CC}$ mA	Pinout							
							1	2	3	4	5	6	7	8
HFD3416 -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 ( $V_{CC}$ )
G = Ground (case)	N = Not used	E = -V ( $V_{EE}$ )

#### 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 mW, 2.5 MHz, 50% duty cycle.
- 4 Fiber Core is 50/125 micron (50).
- 5  $I_{EE}$ .

Honeywell Optoelectronics reserves the right to make changes at any time in order to improve design and supply the best products possible.

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