

T-41-07

ST Fiber-DIP, HFD3200 and HFE4200 Series (ST-FD) LEDs and Integrated Receivers

The Fiber-DIP devices consist of a Base Part mounted in a Plastic ST 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 see page 15 for LEDs and page 17 for integrated receivers in this Selection Guide. Specifications are guaranteed limits.

LEDs

Part #	Description	Base Part	Coupled Power Into Fiber				t_r, t_f ns	Pinout							
			μ W	dBm	I_f (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
-032			3	-25	50	50	3.5	N	A	K	N	N	A	A	N
HFE4213 -033	Highest-Speed LED Fiber DIP Package	HFE4073	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, $V_{cc}=5.0V$)

Part #	Description	Base Part	Sensitivity ⁽¹⁾		I_{cc} mA	P.W.D. ns ⁽³⁾	Output (2)	Pinout							
			μ W	dBm				1	2	3	4	5	6	7	8
HFD3212 -002	Differentiating, 10Mbps	HFD3020-002	0.6	-32	20	50	Inv.	N	V	N	N	N	O	G	N
-003	Differentiating, 10Mbps	HFD3020-002	0.6	-32	20	50	Inv.	N	V	G	N	N	O	G	N
HFD3213 -002	Direct Coupled, 5Mbps	HFD3023-002	2.8	-25	15	60	Inv.	N	V	G	N	N	O	G	N

Analog Integrated Receivers ($V_{cc}=5.0V$)

Part #	Description	Base Part	Responsivity ⁽¹⁾ mV/ μ W	Bandwidth (Typical) MHz	Output (RMS) Noise	I_{cc} mA	Pinout							
							1	2	3	4	5	6	7	8
HFD3211 -002	Linear Output	HFD3026 -002	4	35	0.35mV	10	N	O	N	N	N	V	G	N
-003	Linear Output	HFD3026 -002	4	35	0.35mV	10	N	O	G	N	N	V	G	N
HFD3216 -002	Linear Output	HFD3038 -002	5	125	0.53mV	15 ⁽⁵⁾	N	O	E	N	N	V	E	N

- Notes:
1. Receiver sensitivity and responsivity are measured using a 100/140 micron fiber optic cable.
 2. Inv.= Output is low (<0.4 volts) when light is striking the device.
 3. Pulse Width Distortion is measured at 1.5 volts with an input signal of 100 μ W, 2.5MHz, 50% duty cycle.
 4. Fiber Core is 50/125 micron (50).
 5. I_{cc}

Package Information - ST Fiber-DIP style

All dimensions are in inches [millimeters].

Pinout Definition
A = Anode
C = Capacitor
G = Ground (Case)
I = Input
K = Cathode
N = Not Used
O = Output
V = +V (V_{cc})
E = -V (V_{ee})

