



Tunnel Detectors

SPECIFICATIONS

	OMNIYIG MODEL NUMBER	FREQUENCY RANGE (GHz)	TYPICAL ² TSS (dBm)	K-FACTOR ¹ MINIMUM (mv/mW)	RF BYPASS ³ CAPACITOR (pf)	VSWR ⁴ TYPICAL (-:1)	TYPICAL FLATNESS (±dB)	VIDEO ⁵ CONNECTOR (female)	
B R O A D	ODT0004A	0.1-18	-47	450	500	4	1.5	SMA	
	ODT0102C	0.1-1.0	-50	750	500	3	0.4	BNC	
	ODT0502A	0.1-1.0	-50	750	500	3	0.4	SMA	
	ODT0109C	0.5-2.0	-50	800	100	3	0.4	BNC	
	ODT0509A	0.5-2.0	-50	800	100	3	0.4	SMA	
	ODT0110C	0.5-4.0	-50	300	100	3	0.5	BNC	
	ODT0510A	0.5-4.0	-50	800	100	3	0.5	SMA	
	ODT0117C	1.0-4.0	-51	800	50	3	0.4	BNC	
	ODT0517A	1.0-4.0	-51	800	50	3	0.4	SMA	
	ODT0118C	1.0-12	-50	550	50	3	1.0	BNC	
	ODT0518A	1.0-12	-50	550	50	3	1.0	SMA	
	ODT0126C	2.0-8.0	-50	600	30	3	0.6	BNC	
	ODT0526A	2.0-6.0	-50	600	30	3	0.6	SMA	
	ODT0127C	2.0-12	-50	550	30	3	0.8	BNC	
	ODT0527A	2.0-12	-50	550	30	3	0.8	SMA	
	ODT0328A	2.0-18	-48	450	30	3	1.0	SMA	
	B A N D	ODT0428C	2.0-18	-48	450	30	3	1.0	BNC
ODT0134C		4.0-12	-50	500	20	3	0.6	BNC	
ODT0234A		4.0-12	-50	600	20	3	0.6	SMA	
ODT0434C		4.0-12	-50	600	20	3	0.6	BNC	
ODT0235A		4.0-18	-48	500	20	3	1.0	SMA	
ODT04356		4.0-18	-48	500	20	3	1.0	BNC	
ODT0240A		6.0-18	-48	500	15	3	0.8	SMA	
ODT0440C		6.0-18	-48	500	15	3	0.8	BNC	
O C T A V E		ODT0101C	0.1-0.5	-51	1000	500	2	0.2	BNC
		ODT0501A	0.1-0.5	-51	1000	500	2	0.2	SMA
	ODT0108C	0.5-1.0	-51	1000	100	2	0.2	BNC	
	ODT0508A	0.5-1.0	-51	1000	100	2	0.2	SMA	
	ODT0116C	1.0-2.0	-51	1000	50	2	0.2	BNC	
	ODT0516A	1.0-2.0	-51	1000	50	2	0.2	SMC	
	ODT0125C	2.0-4.0	-51	1000	30	2	0.2	BNC	
	ODT0525A	2.0-4.0	-51	1000	30	2	0.2	SMA	
	ODT0131C	2.5-5.0	-51	800	30	2	0.25	BNC	
	ODT0531A	2.5-5.0	-51	800	30	2	0.25	SMA	
	ODT0133C	4.0-8.0	-50	750	20	2.2	0.35	BNC	
	ODT0233A	4.0-8.0	-50	750	20	2.2	0.35	SMA	
	ODT0533A	4.0-8.0	-50	750	20	2.2	0.4	SMA	
	ODT0137C	5.0-10	-50	700	20	2.2	0.4	BNC	
	ODT0137A	5.0-10	-50	700	20	2.2	0.4	SMA	
	ODT0537A	5.0-10	-50	700	20	2.2	0.5	SMA	
	ODT0139C	6.0-12	-50	600	20	2.3	0.5	BNC	
	ODT0139A	6.0-12	-50	600	20	2.3	0.5	SMA	
	ODT0141C	7.0-11	-50	600	20	2.3	0.4	BNC	
	ODT0241A	7.0-11	-50	600	20	2.3	0.4	SMA	
	ODT0143C	8.0-12	-50	600	20	2.3	0.5	BNC	
	ODT0243A	8.0-12	-50	600	20	2.3	0.5	SMA	
	ODT0244A	8.0-16	-48	500	20	2.3	0.6	SMA	
	ODT0245A	8.0-18	-48	450	15	2.5	0.7	SMA	
	ODT0248A	11-18	-48	450	15	2.5	0.6	SMA	
ODT0249A	12-18	-48	450	15	2.5	0.5	SMA		
ODT0251A	18-26	-45	300	8	3.5	1.0	SMA		
S P E C I A L	ODT0115C	0.7-1.4	-51	800	50	2	0.2	BNC	
	ODT0515A	0.7-1.4	-51	800	50	2	0.2	SMA	
	ODT0123C	1.7-2.4	-52	1000	50	1.4	0.2	BNC	
	ODT0523A	1.7-2.4	-52	1000	50	1.4	0.2	SMA	
	ODT0129C	2.2-2.3	-52	1000	50	1.35	0.1	BNC	
	ODT0529A	2.2-2.3	-52	1000	50	1.35	0.1	SMA	
	ODT0132C	3.7-4.2	-52	1000	30	1.5	0.2	BNC	
	ODT0532A	3.7-4.2	-52	1000	30	1.5	0.2	SMA	
	ODT0138C	5.4-5.9	-52	1000	30	1.5	0.15	BNC	
	ODT0538A	5.4-5.9	-52	1000	30	1.5	0.15	SMA	
	ODT0142C	7.5-8.5	-51	800	30	1.7	0.2	BNC	
	ODT0242A	7.5-8.5	-51	800	30	1.7	0.2	SMA	
	ODT0146C	8.5-9.6	-51	800	30	1.7	0.25	BNC	
ODT0246A	8.5-9.6	-51	800	30	1.7	0.25	SMA		

NOTES:

1. "K" is the small signal open circuit voltage sensitivity. V_{out}/P_{in} . Measurements are taken at -20 dBm RF incident power.
2. BW = 2 MHz.
3. Capacitor values listed are typical. Smaller values available for improved video bandwidth.
4. VSWR is measured -20 dBm and with a 100 load.
5. Video connectors have standard options at NO extra cost as follows:
 - A. BNC female may be replaced with TNC female, SMA female, SMB male, SMC male or solder pin.
 - B. SMA female may be replaced with SMB male, SMC male or solder pin.
 - C. Video connector designations are SMA female (A), SMB male (F), BNC female (C), SMC male (E), TNC female (G), Solder Pin (J).
 - D. Outline styles 00 and 03 have no video connector option. SMA female only.
6. Normal video polarity is negative. Add the letter "R" to the model for positive polarity. (No additional charge).
7. Detectors can be matched within ± 0.25 dB over octave bandwidths and ± 0.4 dB over wider bandwidths.
Add the letter "P" to the end of the model number for matched pairs. Add 10% to price for matching in pairs.
8. Warranty applies to mount only, not the diode element. This element may be replaced at the factory for a nominal charge of \$45.00.

MODEL NUMBER SYSTEM	PRODUCT	STYLE DESC.	FREQ.	OUTPUT CONN.
	<u>ODI</u>	<u>00</u>	<u>04</u>	<u>A</u>
ENVIRONMENTAL	MIL-STD-883			CONDITION
Temperature Range				
Storage	1008C			-65°C to +150°C
Operating (see derating curve)	1008C			-65°C to +125°C
Temperature Cycling	1010C			5 cycles, -65°C to +125°C
Thermal Shock	1011A			5 cycles, 0 to +100°C
Moisture Resistance	1004			10 days, 90 to 98% RH
Shock (Mechanical)	2002A			5 blows, X Y Z @ 50 G's
Vibration Variable Frequency	2007A			4, 4-min. cycles x y z @ 20 G's peak, 100 to 2,000 Hz
Constant Acceleration	2001A			X ₁ Y ₁ Y ₂ 500 G's