

## DUAL TEC Family Feature Chart

FEATURES	DT-7000 Series					DT-4 Series		DT-5	DT-6 Series				DT-9 Series		V-Plex	Wireless
	DT-7235T	DT-7435	DT-7450	DT-7550C	DT-7360	DT-435T	DT-450T	DT-500	DT-640STC	DT-660STC	DT-6100STC	DT-6360STC	DT-900/901	DT-906/907	Quest 2260SN	5897-35
Pet Immune to 100 lbs.	•	•						•								
Coverage Pattern	35'x40'	35'x40'	50'x60'	50'x60'	50' Diam.	35'x30'	50'x40'	35'x30'	40'x40'	60'x60'	100'x20'	50' Diam	50'x40' 90'x70'	120'x10' 200'x15'	60'x75'	35'x30'
Signal Processing	Std	Dual Core	Dual Core	Dual Core	Dual Core	Std	Std	Adv	MAP	MAP	MAP	MAP	Queue Event Logic	Queue Event Logic	C <sup>3</sup>	Std
Optical Technology	Uniform Sens	Uniform Sens	Uniform Sens	Uniform Sens	Mirror	Std	Std	Uniform Sens	Std	Std	Std	Mirror	Mirror	Mirror	Std	Std
Microwave Frequency Band	K	K	K	K	K	X	X	S	X	X	X	X	X	X	X	S
Microprocessor		•	•	•	•			•	•	•	•	•	•	•	•	
Environmental Adaptation	•	•	•	•	•							•	•	•	•	•
Temperature Compensation	Std	Adv	Adv	Adv		Std	Std	Std	Std	Std	Std	Std	Adv	Adv	Adv	Std
Digital Fluorescent Filter		•	•	•	•								•	•	•	
Analog Fluorescent Filter						•	•		•	•	•	•				
Anti-Masking				•									DT900 only	DT906 only		
Walk Test Mode		•	•	•	•	•	•		•	•	•	•	•	•	•	auto
PIR Sensitivity Adjustment		•	•	•	•	•	•		•	•	•	•	•	•	•	
Microwave Adjustment		•	•	•	•	•	•		•	•	•	•	•	•	•	•
Vertical/Horizontal Adjustment													•	•	•	
Trouble Output				•	•				•	•	•	•	•	•	•	•
Tamper Switch(es)	•	•	•	•	••	•	•	Optional	•	••	•	•	•••	•••	•	•
Alarm Relay Forms	A	A,C	A,C	C	C	A,C	A,C	A	C	C	C	C	C	C	Vplex	RF
LED Indicators	1LED	Tri-Color	Tri-Color	Tri-Color	3LEDs	3LEDs	3LEDs	3LEDs	3LEDs	3LEDs	3LEDs	3LEDs	3LEDs	3LEDs	2LEDs	2LEDs
Microwave Supervision	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PIR Supervision		•	•	•	•		•		•	•	•	•	•	•		
Recommended Mtg Height	7' 6"	7' 6"	7' 6"	7' 6"	8' to 16'	7' 6"	7' 6"	7' 6"	7' 6"	7'6"	7'6"	8' to 16'	6' to 12'	6' to 12'	7' to 8'	7'6"
Operating Temperature (°c)	-10 to 55	-10 to 55	-10 to 55	-10 to 55	0 to 49	0 to 49	0 to 49	10 to 49	0 to 49	0 to 49	0 to 49	0 to 49	0 to 49	0 to 49	10 to 50	0 to 60
Input voltage (VDC)	7.5 - 16	7.5 - 16	7.5 - 16	7.5 - 16	10 - 14.5	9 - 14	10 - 14.5	10 - 14.5	10 - 14.5	10 - 14.5	10 - 14.5	10 - 14.5	10 - 15	10 - 15	-10 - 15	3V battery
Maximum Current (ma)	25	35	35	40	40	35	35	35	35	35	40	40	35	35		
Swivel Bracket Options	SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T		SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T	SMB-10 SMB-10T	Included	Included	9985B	

**Pet Immune to 100lbs.:**

Sensor is immune to pets and other animals with combined weight of 100lbs when installation guidelines for pet immunity are followed.

**Coverage pattern:**

Length by width of area protected.

**Signal Processing:**

Analysis performed on PIR and microwave signals to determine alarm conditions.

**DualCore:** Signals are analyzed in multiple domains, including amplitude, time, frequency and duration.

Supports functions including diagnostics and other advance false alarm features.

**C<sup>3</sup>:** Correlates data from both channels simultaneously, instead of independently processing each.

**MAP:** Timing and sequence of signals are compared to settings for specific environments to qualify each channel individually.

**Queue Event Logic:** Pulse counting while looking for specific sequences of events.

**Advanced:** Pulse counting with timing relationships.

**Standard:** Basic pulse counting.

**Optical Technology:**

Technology used to collect infrared radiation for PIR processing.

**Uniform Sensitivity:** Fresnel lens that provides the same sensitivity at the edge of the pattern as exists directly in front of the sensor.

**Split-Zone:** Zones are split into two sub-zones where each sub-zone has half the sensitivity of a regular zone, requiring targets to be in both zones for an alarm.

**Standard:** Basic Fresnel lens.

**Mirror:** Basic mirror optics.

**Microwave Frequency Band:**

Frequency at which the microwave signal is radiated and received. Higher frequencies generally penetrate non-metallic objects less than lower frequencies.

S-band: 2.54 GHz

X-band: 10.525 GHz

K-band: 24.125 GHz

**Environmental Adaption:**

Microwave thresholds are adapted either in hardware or digitally to remove the effect of low level interference such as ceiling fans.

**Temperature Compensation:**

Sensor automatically adjusts PIR thresholds and/or other parameters to adapt to change in ambient temperature relative to human body temperature.

**Standard;** Compensates at ambient temperatures below body temperature.

**Advanced:** Compensates at ambient both below and above body temperature.

**Digital Fluorescent Light Filter:**

Software algorithms provide infinite rejection of microwave interference due to fluorescent lights.

**Analog Fluorescent Light Filter:**

Hardware circuitry provides rejection of microwave interferences due to fluorescent lights.

**Anti-Masking:**

Detects intentional and accidental blocking of the PIR optics.

**Walk Test Mode:**

Determines the coverage pattern and functionality for both the PIR and microwave channels, usually through LED indicators.

**PIR Sensitivity Adjustment:**

Selectable option to change the PIR process sensitivity, usually through a DIP switch or jumper link.

**Microwave Sensitivity Adjustment:**

Selectable option to change the microwave sensitivity and/or range, usually through a potentiometer.

**Vertical Adjustment:**

Capability to adjust the vertical PIR detector position relative to the optics, usually through a vertical shift in the PCB. Usually used to adjust range at different mounting heights, or accurately set the coverage pattern for different lenses or mirrors.

**Horizontal Adjustment:**

Capability to shift the PIR zones left or right by a few degrees. Usually used to locate potential false alarm source, such as a heating vent between zones, or to aim the optics in a particular direction, such as a hallway.

**Trouble Output:**

Separate output used to indicate supervision failures and/or anti-mask detection to the control panel.

**Alarm Relay Forms:**

Type of output relay used to signal panel when an intrusion is detected.

**Form A:** Two-terminal relay with Normally Closed output when energized.

**Form C:** Three-terminal relay with both Normally Closed and Normally Open outputs when energized.

**LED Indicators:**

Light Emitting Diodes used to provide visual feedback about alarm state, supervision, walk test, and other modes of operation.

**1 LED:** Single red LED

**3 LEDs:** Red, green, yellow LEDs, usually with PIR and microwave channels associated with a specific color.

**Microwave Supervision:**

Automatic self-test of microwave channel for proper operation.

**PIR Supervision:**

Automatic self-test of microwave channel for proper operation.

**Recommended Mounting Height:**

Suggested height to mount processor for optimal performance. Usually important for pet immune applications.

**Operating Temperature:**

Temperature range at which the sensor can be expected to provide adequate protection. UL certification may have a narrower range.

**Input Voltage:**

Voltage range at the terminal strip at which the sensor will operate. UL may have certified for a slightly narrower range.

**Swivel Bracket Options:**

Brackets used to mount sensors in installations that have special aiming or mounting heights.