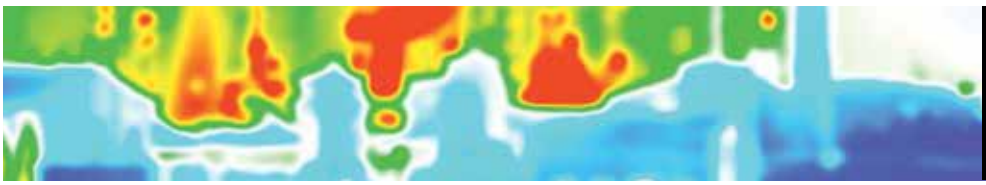


DATASHEET
Infrared Sensing Solutions

New Digital Pyrodetector Series

Next-Generation, Low-Power *DigiPyro*® for Battery-Operated Motion Detection

PYD 1588, PYD 1598 – PYQ 1548 *DigiPyro*®

The new Low-Power DigiPyro "Gen2" 1500 Series is the upgrade from our PYD 1600 Series which was introduced with great success in 2015. The new generation DigiPyro addresses the growing market requirements for added performance and functionality. With significant reduction of supply voltage requirements, the PYD 1500 Series operates at 1,8 V – 3,3V. Further, the new Low-Power DigiPyro "Gen2" offers selectable band-pass function, and improved selectable pulse count extending affect detection range and minimizing sensor reaction time.

The wake-up / sleep mode promotes power savings and extends service life, making it ideal for prolonged battery-operated motion detection. Continuous motion sensing, signal processing and event/motion detection is handled onboard by the Low-Power DigiPyro, while the hosting microcontroller can be set into a power saving mode. Only upon detection of motion, per its programmed settings, the Low-Power DigiPyro signalizes the microcontroller to wake up.

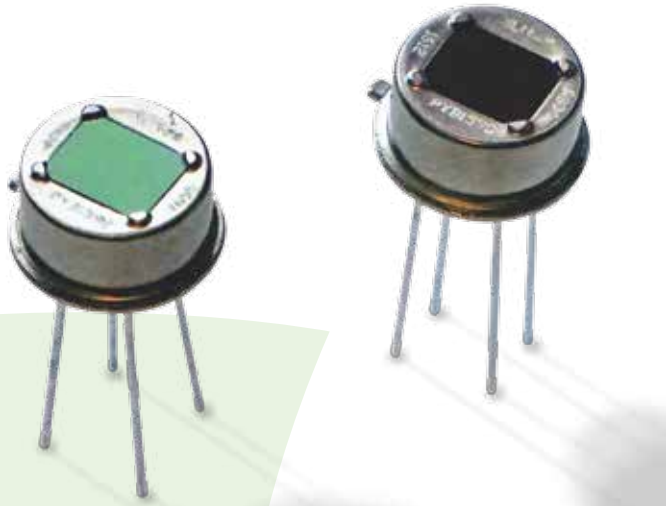
With this enhanced expansion of the DigiPyro Series, we now offer a complete family of products in addition to PYD1688, PYD1698, PYQ1648, and now PYD1588, PYD1598 and PYQ1548.

Applications

- IP Cameras
- Wireless Intrusion Alarms
- Battery-operated Motion Detection
- Portable Motion Detection

Features and Benefits

- Wake up/ Sleep Mode
- 1,8 V Operation
- Selectable Band Pass
- Pulse Count Option
- Extended Detection Range
- Quicker Reaction Time



EXCELITAS TECHNOLOGIES®

PYD 1588 and PYD 1598						
Main Parameter	**Symbol**	**Min.**	**Typ.**	**Max.**	**Unit**	Remarks
Responsivity		3,3	4		kV/W	f = 1 Hz
Match			5	10	%	
Noise			20	78	μV_{pp}	
Operation Data						
Operating Voltage	V_{DD}	1,8	3,0	3,6	V	
Supply Current	I_{DD}		3	5	µA	V_{DD} = 3V, No Load
ADC Data						
ADC Resolution			14		Bits	Max. Count $=2^{14}-1$
PIR ADC Sensitivity			6,5			µV/Count
Output Range		511		$2^{14}-511$	Counts	
LPF Cutoff Frequency	f_1		7		Hz	
HPF Cutoff Frequency	f		0,4 /0,2		Hz	Selectable
Window Size **PYD1588**			x=3,4 /Y=4,6		mm	
Window Size **PYD1598**			x=4,2 / Y=5,2		mm	

Excelitas Technologies
22001 Dumberry Road
Vaudreuil-Dorion, Quebec
Canada J7V 8P7
Telephone: (+1) 450.424.3300
Toll-free: (+1) 800.775.6786
Fax: (+1) 450.424.3345
detection.na@excelitas.com

Excelitas Technologies
GmbH & Co. KG
Wenzel-Jaksch-Str. 31
D-65199 Wiesbaden
Germany
Telephone: (+49) 611 492 430
Fax: (+49) 611 492 165
detection.europe@excelitas.com

Excelitas Technologies
8 Tractor Road
Singapore 627969
Telephone: (+65) 6775 2022 (Main number)
Telephone: (+65) 6770 4366 (Customer Service)
Fax: (+65) 6778-1752
detection.asia@excelitas.com

For a complete listing of our global offices, visit www.excelitas.com/locations

05.2016