

# CMR3000

3-axis Low Power Gyro for Consumer Electronics



LOW POWER | SMALL SIZE | HIGH PERFORMANCE

SMALL SIZE MAKE A BIG DIFFERENCE. FOR A SAFER, MORE ENJOYABLE WORLD.

**VTI**   
TECHNOLOGIES

# CMR3000

## 3-axis Low Power Gyro for Consumer Electronics

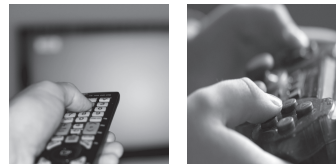
### Key features (CMR3000-D01)

- 2.5 V-3.6 V supply voltage
- 1.6 V-3.6 V digital I/O voltage
- Low 5 mA current consumption
- $\pm 2000$  °/s measurement range
- 20 Hz and 80 Hz user selectable bandwidths
- SPI and I<sup>2</sup>C digital interface
- Size 3.1x4.1x0.83 mm<sup>3</sup>
- Proven capacitive 3D-MEMS technology
- High shock durability
- RoHS compliant/lead free soldering

### Applications

Thanks to the very low power consumption CMR3000 is particularly suitable for battery operated devices, such as

- Gaming input devices
- Computer peripherals and remote controllers
- Mobile phones



### CMR3000-D01 gyroscope characteristics

Parameter	Condition	Typical supply range 2.5-3.0 V			Extended supply range 3.0-3.6 V			Units
		Min	Nom	Max	Min	Nom	Max	
Vdd		2.5	2.8	3.0	-	3.3	-	V
Digital I/O Vdd	Vdd $\geq$ Digital I/O Vdd	1.6	1.8/2.8	3.0	-	3.3	-	V
Operating temperature		-40	-	85	-40	-	85	°C
Current consumption	Measurement	-	5		-	5	-	mA
	Stand-by	-	1.3		-	1.3	-	mA
	Power down	-	1		-	<10	-	nA
Measurement range	FS=2000 °/s	-2000	-	2000	-	$\pm 2000$	-	°/s
Offset calibration error		-200	-	200		$\pm 200$		°/s
Offset temperature error	-40 ... +85 °C		$\pm 1$			$\pm 1$		°/s/°C
Sensitivity		-	1.33	-	-	1.33	-	Count/°/s
Sensitivity calibration error		-7	-	+7	-	$\pm 7$	-	%
Sensitivity temperature error	-40 ... +85 °C	-	0.02			0.02		%/°C
Non-linearity	-1000 <math>\Omega</math> <math>1000</math> °/s	-	1		-	1	-	% FS
Output data rate, ODR			2000		-	2000	-	Hz
Bandwidth			20			20	-	Hz
			80			80		Hz
Integrated noise stdev	20 Hz BW	-	0.9		-	0.9	-	°/s
Turn on time		-	250		-	250	-	ms
I <sup>2</sup> C clock rate		-	-	400	-	-	400	kHz
SPI clock rate		-	-	500	-	-	500	kHz

For more detailed information, please check CMR3000 Datasheet available at [www.vtitechnologies.com](http://www.vtitechnologies.com)