



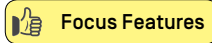
RF Components

2021 Selection Guide



HIGH QUALITY AND RELIABILITY SINCE 1959

RF Switches



LOWEST
TO HIGHEST

Part Number	Type	Frequency Range [GHz]	Vcontrol [V]	# of Controls	Insertion Loss [dB]	Isolation [dB]	Compression point @ 3V [dBm] 2.5 GHz	Compression point @ 3V [dBm] 6.0 GHz	Control Current [uA]	Switching Speed [ns]	Logic For "ON"	Package Styles	Price Rank
CG2179M2	SPDT	0.05 to 3.0	1.8, 3.0, 5.0	2	0.45 @ 2.5GHz	26 @ 2.5GHz	+30 @ P0.1dB	—	1	50	Low	M2	①
CG2214M6	SPDT	0.05 to 3.0	1.8, 3.0, 5.0	2	0.35 @ 2.5GHz	25 @ 2.5GHz	+30 @ P0.1dB	—	1	50	Low	M6	②
CG2185X2	SPDT	2.0 to 6.0	1.8, 3.0, 5.0	2	0.35 @ 2.5GHz 0.40 @ 6.0GHz	28 @ 2.5GHz 26 @ 6.0GHz	+29 @ P0.1dB	+29 @ P0.1dB	2	50	Low	X2	③
CG2415M6	SPDT	0.5 to 6.0	1.8, 3.0, 5.3	2	0.35 @ 2.5GHz 0.45 @ 6.0GHz	32 @ 2.5GHz 26 @ 6.0GHz	+31 @ P0.1dB	+31 @ P0.1dB	5	100	High	M6	④
CG2163X3	SPDT	2.4 to 2.5 4.9 to 6.0	1.8, 3.0, 5.0	2	0.40 @ 2.5GHz 0.50 @ 6.0GHz	40 @ 2.5GHz 31 @ 6.0GHz	+33 @ P1.0dB	+32 @ P1.0dB	2	80	High	X3	⑤
CG2164X3	DPDT	0.05 to 6.0	1.8, 3.0, 5.0	2	0.50 @ 2.5GHz 0.60 @ 6.0GHz	23 @ 2.5GHz 15 @ 6.0GHz	+32 @ P0.5dB	+30 @ P0.5dB	2	30	Low	X3	⑥
CG2430X1	SP3T	0.1 to 6.0	1.8, 3.0, 5.0	3	0.50 @ 2.5GHz 0.60 @ 6.0GHz	28 @ 2.5GHz 25 @ 6.0GHz	+28 @ P0.1dB	+28 @ P0.1dB	2	80	High	X1	⑦
CG2409M2	SPDT	0.05 to 3.8	1.8, 3.0, 5.0	2	0.42 @ 2.5GHz	30 @ 2.5GHz	+36.5 @ P0.1dB	—	7	100	High	M2	⑦
CG2409X3	SPDT	0.05 to 6.0	1.8, 3.0, 5.0	2	0.40 @ 2.5GHz 0.55 @ 6.0GHz	32 @ 2.5GHz 34 @ 6.0GHz	+37.5 @ P0.1dB	+37.5 @ P0.1dB	7	100	High	X3	⑦
CG2176X3	Absorptive SPDT	2.3 to 2.7 3.3 to 3.8 4.9 to 5.85	1.8, 3.0, 5.0	2	0.45 @ 2.5GHz 0.55 @ 5.8GHz	30 @ 2.5GHz 22 @ 5.8GHz	+37.5 @ P0.5dB	+37.5 @ P0.5dB	16	100	High	X3	⑧

Package Styles and Dimensions (mm)



RF pHEMTs (GaAs FETs)

 Focus Features

LOWEST
TO HIGHEST

Part Number	Test Frequency [GHz]	NF/GA Bias		NF [dB]	GA [dB]	Idss [mA]	Package Styles	Price Rank
		Vds [V]	Ids [mA]					
CE3514M4	12	2.0	10	0.42	12.2	47.5	M4	①
CE3512K2	12	2.0	10	0.30	13.7	47	K2	②
CE3521M4	20	2.0	10	0.70	11.9	40	M4	③*
CE3520K3	20/24	2.0	10	0.55/0.80**	13.8/13.9	40	K3	④

* Lowest price 20GHz device

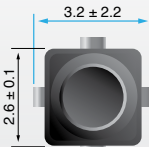
** Best NF 20GHz device

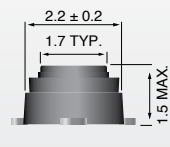
Package Styles and Dimensions (mm)

K2, K3 Package
2.6 x 2.6 x 1.5

Top View

Side View

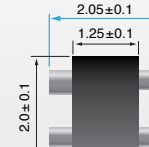


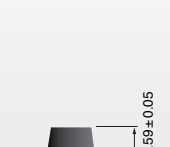


M4 Package
2.0 x 1.25 x 0.6

Top View

Side View





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LOWER COST



HIGHER PERFORMANCE



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JAPANESE QUALITY



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For over 6 decades, CEL has been providing world class wireless and optical products, with specialized support, to OEMs needing wireless communication.

Built around the customer, CEL provides extensive technical support to assist customers in adding connectivity to their products; this includes detailed documentation, device testing, evaluation boards, software and development tools, design reviews, end-product performance verification, Etc.

The Connectivity team specializes in offering industry-leading performance and high-quality embedded radios to OEMs needing connectivity.

Our Components group focuses on RF/Microwave switches and low-noise FETs.

Our support team is located in North America, fostering an easy and convenient collaboration between us and your development team.

Our mission is to make customers successful, which drives our success.

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