ABOUT CEL

CEL (California Eastern Laboratories) is an engineering, sales and marketing company focused on RF Semiconductors, Optical Semiconductors and Wireless connectivity Solutions.

CEL serves designers, OEMs and contract manufacturers in various RF, Wireless and Optical markets. With over 55 years of experience in high frequency design, customer support and fulfillment, CEL is ideally positioned to provide its customers with a stable supply of products to meet their specific needs.

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For a complete list of sales offices, representatives and distributors, please visit our website: www.cel.com/contactus

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RF Switch Table

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Type</th>
<th>Frequency Range [GHz]</th>
<th>Vcontrol [V]</th>
<th># of Controls</th>
<th>Insertion Loss [dB]</th>
<th>Isolation [dB]</th>
<th>Compression point @ 3V [dBm] 2.5 GHz</th>
<th>Compression point @ 3V [dBm] 6.0 GHz</th>
<th>Control Current [uA]</th>
<th>Switching Speed [ns]</th>
<th>Logic For “ON”</th>
<th>Package Styles</th>
<th>Price Rank</th>
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<tbody>
<tr>
<td>CG2179M2</td>
<td>SPDT</td>
<td>0.05 to 3.0</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.45 @ 2.5GHz</td>
<td>28 @ 2.5GHz</td>
<td>+30 @ P0.1dB</td>
<td>—</td>
<td>1</td>
<td>50</td>
<td>Low</td>
<td>M2</td>
<td>1</td>
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<tr>
<td>CG2214M6</td>
<td>SPDT</td>
<td>0.05 to 3.0</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.35 @ 2.5GHz</td>
<td>25 @ 2.5GHz</td>
<td>+30 @ P0.1dB</td>
<td>—</td>
<td>1</td>
<td>50</td>
<td>Low</td>
<td>M6</td>
<td>2</td>
</tr>
<tr>
<td>CG2185X2</td>
<td>SPDT</td>
<td>2.0 to 6.0</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.35 @ 2.5GHz</td>
<td>28 @ 2.5GHz</td>
<td>+29 @ P0.1dB</td>
<td>+29 @ P0.1dB</td>
<td>2</td>
<td>50</td>
<td>Low</td>
<td>X2</td>
<td>3</td>
</tr>
<tr>
<td>CG2415M6</td>
<td>SPDT</td>
<td>0.5 to 6.0</td>
<td>1.8, 3.0, 5.3</td>
<td>2</td>
<td>0.35 @ 2.5GHz</td>
<td>32 @ 2.5GHz</td>
<td>+31 @ P0.1dB</td>
<td>+31 @ P0.1dB</td>
<td>5</td>
<td>100</td>
<td>High</td>
<td>M6</td>
<td>4</td>
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<tr>
<td>CG2163X3</td>
<td>SPDT</td>
<td>2.4 to 2.5</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.40 @ 2.5GHz</td>
<td>40 @ 2.5GHz</td>
<td>+33 @ P1.0dB</td>
<td>+32 @ P1.0dB</td>
<td>2</td>
<td>80</td>
<td>High</td>
<td>X3</td>
<td>5</td>
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<tr>
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<td>DPDT</td>
<td>0.05 to 6.0</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
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<td>23 @ 2.5GHz</td>
<td>+32 @ P0.5dB</td>
<td>+30 @ P0.5dB</td>
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<td>30</td>
<td>Low</td>
<td>X3</td>
<td>6</td>
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<td>SP3T</td>
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<td>1.8, 3.0, 5.0</td>
<td>3</td>
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<td>28 @ 2.5GHz</td>
<td>+28 @ P0.1dB</td>
<td>+28 @ P0.1dB</td>
<td>2</td>
<td>80</td>
<td>High</td>
<td>X1</td>
<td>7</td>
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<tr>
<td>CG2409M2</td>
<td>SPDT</td>
<td>0.05 to 3.8</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.42 @ 2.5GHz</td>
<td>30 @ 2.5GHz</td>
<td>+36.5 @ P0.1dB</td>
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<td>7</td>
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<td>High</td>
<td>M2</td>
<td>8</td>
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<tr>
<td>CG2409X3</td>
<td>SPDT</td>
<td>0.05 to 6.0</td>
<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.40 @ 2.5GHz</td>
<td>32 @ 2.5GHz</td>
<td>+37.5 @ P0.1dB</td>
<td>+37.5 @ P0.1dB</td>
<td>7</td>
<td>100</td>
<td>High</td>
<td>X3</td>
<td>9</td>
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<td>Absorptive</td>
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<td>1.8, 3.0, 5.0</td>
<td>2</td>
<td>0.45 @ 2.5GHz</td>
<td>30 @ 2.5GHz</td>
<td>+37.5 @ P0.1dB</td>
<td>+37.5 @ P0.1dB</td>
<td>16</td>
<td>100</td>
<td>High</td>
<td>X3</td>
<td>10</td>
</tr>
</tbody>
</table>

RF Switch Basics

RF Switch Description

An RF switch is a microwave device that routes high frequency signals through transmission paths. CEL Switches are used for diverse applications such as WLAN, Mobile Communications, Wireless Security, Wireless Home Automation, Digital TV and many other RF applications.

CEL offers a broad selection of RF Switches with many configurations, package styles and performance attributes.

Power Considerations for your RF Switches

Output Power vs. Input Power

It is not recommended to operate a switch at its P1.0dB compression point due to the higher relative insertion loss associated with this power level.

Bidirectional RF Switch Operation

Focus Features

External DC Block

RF Common Port

Control Voltage

1

Control Voltage

2

Internal DC Block

Switch Application Examples

Bluetooth

Zigbee/802.15.4

General Purpose/Short Range Wireless

WLAN/ Wi-Fi

MobileComm

AMR/AMI
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