5G mmW Mixed-Signal and RF Front-End Solution
24 GHz to 48.2 GHz
SEPTEMBER 2022

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Why Choose Analog Devices For Your Next 5G mmW Design?

Analog Devices delivers the industry’s highest performance 5G mmW front-end signal chain solution for next-generation 5G mmW infrastructure. A platform solution is created from complementary building blocks (24 GHz to 48.2 GHz) offering a future-proof design that lowers platform R&D costs and enables faster development times. Explore some of the key benefits of our full 5G mmW front-end signal chain solutions and visit analog.com/5GmmW for more information.

*2 Up/Downconverters + *3 Beamformers to Cover the Entire 24 GHz to 48.2 GHz Spectrum

**Up/Downconverters**
- Fully integrated LO chains and multipliers and LO synchronization
- Optional, bypassable TDD integrated switch
- Multimode operation: IF and direct conversion operation

**Beamformers**
- Industry’s highest channel count beamformers (16 channels in one IC)
- Dual polarized 8 × 2 configuration
- Onboard memory for storing beam positions and phase/gain calibration

**Key Benefits**
- Next-generation CMOS IC technology delivering highest efficiency and output power.
- Complete signal chain covering all 5G mmW bands (24 GHz to 48.2 GHz).
- Portfolio of PLL/VCOs that deliver optimized phase noise performance for lowest EVM requirements.
- Industry-leading beamformer linearity and efficiency.

**Enhanced Performance**
- On-chip NVM plus online array calibration IP to optimize beamforming array performance.
- Wideband beamformers covering multiple 5G bands in one footprint.

**Mixed-Signal Front End**
Visit analog.com/RFMW to explore our MxFE® and clocking portfolio for high performance digitization of analog signals.

**Power ICs**
See our complete portfolio at analog.com/power.
Delivering on the Promise of 5G mmW

Analog Devices tackles the world’s most complex communications problems. Our latest 5G mmW RF ICs deliver uncompromising performance and target next-generation infrastructure solutions.

The portfolio of ICs breaks the current narrow-band vendor paradigm by simultaneously optimizing power consumption, bandwidth, and performance while delivering the highest level of integration.

5G Requirements—What Do Operators Care About?

5G promises to deliver on the following key requirements at the network level. While 5G deployments require a customized, market-specific approach pulling on a mix of the pillars below, the need for a comprehensive understanding of the system challenges involved for effective execution is common. Analog Devices is democratizing commercial phased arrays by coupling market-leading mmWave IC design heritage, in-house packaging, and system design expertise with world-class quality and supply stability.

- **10 TBps/km² Mobile Data Volume**
- **Up to 10 Gbps Data Rate**
- **Availability 99.999%**
- **E2E Latency 5 ms**
- **10 Year Battery Life for IoT**
- **10% of Current Energy Consumption**
- **Connected Devices 1M/km²**
- **Mobility 500 km/h**

FOR MORE INFORMATION, CONTACT MMWAVE5G@ANALOG.COM
What Are the 5G mmW Wireless Front-End Design Challenges?

24 GHz to 48.2 GHz
Full 5G mmW FR2 frequency coverage required.

EIRP in Excess of 60 dBm
Outdoor coverage requires significantly high EIRP in small form factors at lowest bit error rates.

Highest Signal Chain Integration
The mechanical radio enclosure must be small and aesthetically pleasing for widespread use.

1.6 GHz Channel Bandwidth
Maintain stable performance across the widest channel bandwidths with no EVM degradation to deliver the highest data rates to users.

Path Loss at FR2
Path loss is higher and PA power is lower at mmWave, resulting in a more challenging link budget relative to sub-6 GHz.

Multiple Streams Needed
Active phased array antennas with many radiating elements in each array supporting multiple simultaneous data streams for higher capacity.

Multiple Radio Bands Across Wide RF Range
Supply chains complicated by narrow-band front-end IC designs each covering a small portion of the 24 GHz to 48.2 GHz frequency range.

High Performance Phased Array Design
A holistic system-level design approach beyond ICs is required to enable first pass success in challenging mmWave designs.

Networks are no longer just about coverage. It’s now about CAPACITY.
What Is ADI’s 5G mmW Mixed-Signal Platform Solution?

**MxFE: SIMPLE, SCALABLE, EFFICIENT**

The MxFE platform of products tackles challenges with direct RF sampling and very wide channel bandwidth, all software defined, for a simple, scalable, efficient, and future-proof solution.

**What Is ADI’s 5G mmW Mixed-Signal Platform Solution?**

- **MxFE**
  - AD9986 (4T2R)
  - AD9988 (4T4R)

1.6 GHz
Highly integrated mixed-signal analog front end with 1.6 GHz bandwidth per transmit and receive channel.

7.2 GHz
Enables direct RF conversion of intermediate frequencies up to 7.2 GHz.

Hardened on-chip digital signal processing provides system scalability and lower system power.

**MXFE: SIMPLE, SCALABLE, EFFICIENT**

The MxFE platform of products tackles challenges with direct RF sampling and very wide channel bandwidth, all software defined, for a simple, scalable, efficient, and future-proof solution.

- **The green block** highlights the on-chip DSP including a programmable FIR filter and coarse/fine decimation filters on the receive path and coarse/fine interpolation filters on the transmit path.
- **The orange block** shows the AD9988 offering four ADC channels at 4 GSPS and four DAC channels at 12 GSPS.

FOR MORE INFORMATION, CONTACT MMWAVE6G@ANALOG.COM
What Is ADI’s 5G mmW Front-End Platform Solution?

### Mixed-Signal Front End (MxFE)

- **ASIC/FPGA**
- **Digital RF Baseband**
- **RF Baseband**
- **Mixed-Signal Front End (MxFE)**

### DDS Rx0

- **PLL/VCO**
- **Mixer**

### DDS Rx0

- **PLL/VCO**
- **Mixer**

### PLL/VCO

- **ADF4372**
- **ADF4371**
- **ADF4368 NEW**

### Mixer (Optional)

- **LTC5510**
- **LTC5589**
- **LTC5594**

### I/Q Mods/Demods (Optional)

- **LTC5589**
- **LTC5594**

### Frac-N PLL with Integrated VCO

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency (GHz)</th>
<th>Open-Loop VCO Phase Noise @ 100 kHz (dBc/Hz)</th>
<th>Open-Loop VCO Phase Noise @ 1 MHz (dBc/Hz)</th>
<th>@ FRef (GHz)</th>
<th>Figure of Merit (dBc/Hz)</th>
<th>Vh (V)</th>
<th>Iq (mA)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF4368</td>
<td>0.8 to 12.8</td>
<td>-716</td>
<td>-237</td>
<td>12</td>
<td>-279 (int)</td>
<td>625</td>
<td>12</td>
<td>7 x 7 LGA</td>
<td>EAR99</td>
<td>ADF4368BCCZ</td>
</tr>
<tr>
<td>ADF4377</td>
<td>0.8 to 12.8</td>
<td>-716</td>
<td>-237</td>
<td>12</td>
<td>-279 (int)</td>
<td>625</td>
<td>12</td>
<td>7 x 7 LGA</td>
<td>EAR99</td>
<td>ADF4377BCCZ</td>
</tr>
<tr>
<td>ADF4372</td>
<td>0.082 to 16.0</td>
<td>-111</td>
<td>-123</td>
<td>8</td>
<td>234</td>
<td>155</td>
<td>12</td>
<td>70 x 710</td>
<td>EAR99</td>
<td>ADF4372BCCZ</td>
</tr>
<tr>
<td>ADF4371</td>
<td>0.082 to 32.0</td>
<td>-110</td>
<td>-123</td>
<td>24</td>
<td>234</td>
<td>160</td>
<td>12</td>
<td>190 x 135</td>
<td>EAR99</td>
<td>ADF4371BCCZ</td>
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</tbody>
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### Mixers

<table>
<thead>
<tr>
<th>Description</th>
<th>RF (GHz)</th>
<th>LO (GHz)</th>
<th>IF (GHz)</th>
<th>Conversion Gain (dB)</th>
<th>Input IP3 (dBm)</th>
<th>NF (dB)</th>
<th>Input PdB (dBm)</th>
<th>LO Drive (dBm)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC5510</td>
<td>Active</td>
<td>0.001 to 6</td>
<td>0.001 to 6</td>
<td>0.001 to 6</td>
<td>1.1</td>
<td>25</td>
<td>11.6</td>
<td>11.5</td>
<td>0</td>
<td>4 x 4 QFN</td>
<td>EAR99</td>
</tr>
<tr>
<td>LTC5549</td>
<td>Passive</td>
<td>2 to 14</td>
<td>1 to 12</td>
<td>0.5 to 6</td>
<td>-10.8</td>
<td>24</td>
<td>10.4</td>
<td>14.3</td>
<td>0</td>
<td>3 x 3 QFN</td>
<td>EAR99</td>
</tr>
<tr>
<td>LTC5576</td>
<td>Active</td>
<td>3 to 8</td>
<td>1 to 8</td>
<td>0.03 to 6</td>
<td>-0.6</td>
<td>26</td>
<td>14.1</td>
<td>10.4</td>
<td>0</td>
<td>4 x 4 QFN</td>
<td>EAR99</td>
</tr>
</tbody>
</table>

### I/O Modulator

<table>
<thead>
<tr>
<th>Description</th>
<th>RF Frequency (GHz)</th>
<th>LO Leakage (dBm)</th>
<th>Sideband Suppression (dB)</th>
<th>Noise (dBm/Hz)</th>
<th>Output PdB (dBm)</th>
<th>Output PdB (dBm)</th>
<th>BB-BW (dB)</th>
<th>BB-BW @ 3 dB</th>
<th>Vh (V)</th>
<th>Is (mA)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC5589</td>
<td>Low power</td>
<td>0.7 to 6</td>
<td>-40.2</td>
<td>-41.5</td>
<td>-158.1</td>
<td>3.9</td>
<td>17.5</td>
<td>167</td>
<td>3.3</td>
<td>29.5</td>
<td>4 x 4 QFN</td>
<td>EAR99</td>
<td>LTC5589U0F#TRPBF</td>
</tr>
</tbody>
</table>

### I/O Demodulator

<table>
<thead>
<tr>
<th>Description</th>
<th>RF Frequency (GHz)</th>
<th>Gain Error (dB)</th>
<th>Phase Error (°)</th>
<th>Noise Figure (dB)</th>
<th>Input PdB (dBm)</th>
<th>Input PdB (dBm)</th>
<th>BB-BW (MHz)</th>
<th>BB-BW @ 3 dB (MHz)</th>
<th>Vh (V)</th>
<th>Is (mA)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC5594</td>
<td>Ultrawideband, with VGA</td>
<td>0.3 to 9</td>
<td>0.06</td>
<td>1.6</td>
<td>21.2</td>
<td>4</td>
<td>27.8</td>
<td>1000</td>
<td>5</td>
<td>470</td>
<td>5 x 5 QFN</td>
<td>EAR99</td>
<td>LTC5594U0F#TRPBF</td>
</tr>
</tbody>
</table>

FOR MORE INFORMATION, CONTACT MMWAVE5G@ANALOG.COM
**What Is ADI's 5G mmW Front-End Platform Solution?**

**Mixed-Signal 5G mmW RF Front End**

**Upconverters and Downconverters**

<table>
<thead>
<tr>
<th>Description</th>
<th>RF (GHz)</th>
<th>LO (GHz)</th>
<th>IF (GHz)</th>
<th>Conversion Gain (dB)</th>
<th>Input IP3 (dBm)</th>
<th>LO Drive Nominal</th>
<th>Vcc (V)</th>
<th>Icc (mA)</th>
<th>DC Power (W)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMV1013 Wideband I/O upconverter with 4× LO</td>
<td>24 to 44</td>
<td>5.4 to 10.25</td>
<td>0 to 6</td>
<td>18</td>
<td>23</td>
<td>26</td>
<td>0</td>
<td>3.3</td>
<td>550</td>
<td>6 x 6 LGA</td>
<td>EAR99</td>
<td>ADMV1013ACCZ</td>
</tr>
<tr>
<td>ADMV1014 Wideband I/O downconverter with 4× LO</td>
<td>24 to 44</td>
<td>5.4 to 10.25</td>
<td>0 to 6</td>
<td>17</td>
<td>0</td>
<td>30</td>
<td>5.5</td>
<td>0</td>
<td>3.3</td>
<td>437</td>
<td>5 x 5 LGA</td>
<td>EAR99</td>
</tr>
<tr>
<td>ADMV1017 Integrated mmW 5G up/downconverter</td>
<td>24 to 29.5</td>
<td>5 to 15</td>
<td>DC to 1.5 (BB)</td>
<td>3 to 10.5 (IF)</td>
<td>–8</td>
<td>3.3/1.8/1.5</td>
<td>1.75</td>
<td>9 + 8 LGA</td>
<td>EAR99</td>
<td>ADMV1017BCCZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADMV1018 Thermally enhanced mmW 5G up/downconverter</td>
<td>24 to 29.5</td>
<td>5 to 15</td>
<td>DC to 1.5 (BB)</td>
<td>2 to 8 (IF)</td>
<td>–8</td>
<td>3.3/1.8/1.5</td>
<td>1.75</td>
<td>9 + 8 LGA</td>
<td>EAR99</td>
<td>ADMV1018BCCZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADMV1128 1T1R 5G mmW microwave up/downconverter</td>
<td>24 to 29.5</td>
<td>5 to 15</td>
<td>DC to 1.5 (BB)</td>
<td>2 to 8 (IF)</td>
<td>–8</td>
<td>3.3/1.8/1.5</td>
<td>1.75</td>
<td>9 + 8 LGA</td>
<td>EAR99</td>
<td>ADMV1128BCCZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADMV1139 1T1R 5G mmW microwave up/downconverter</td>
<td>37 to 48.2</td>
<td>7.25 to 12.05</td>
<td>DC to 1.5 (BB)</td>
<td>2 to 8 (IF)</td>
<td>–8</td>
<td>3.3/1.8/1.5</td>
<td>1.75</td>
<td>9 + 8 LGA</td>
<td>EAR99</td>
<td>ADMV1139BCCZ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SPDT Switches**

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency (GHz)</th>
<th>Insertion Loss (dB)</th>
<th>Isolation (dB)</th>
<th>Input PO1/2dB (dBm)</th>
<th>Input IP3 (dBm)</th>
<th>On/Off Time (ns)</th>
<th>Control Input (VDC)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADRF5300 SPDT with no neg. supply</td>
<td>24 to 32</td>
<td>1.1</td>
<td>38</td>
<td>37</td>
<td>65</td>
<td>60/60</td>
<td>CMOS/LVTTL compatible</td>
<td>3 x 3 LGA</td>
<td>EAR99</td>
<td>ADRF5300BCCZN</td>
</tr>
<tr>
<td>ADRF5301 NEW SPDT with no neg. supply</td>
<td>37 to 46</td>
<td>1.2</td>
<td>35</td>
<td>37</td>
<td>52</td>
<td>35</td>
<td>CMOS/LVTTL compatible</td>
<td>3 x 3 LGA</td>
<td>TBD</td>
<td>ADRF5301BCCZN</td>
</tr>
<tr>
<td>ADRF5024 SPDT, reflective</td>
<td>0.1 to 44</td>
<td>1.4</td>
<td>38</td>
<td>27</td>
<td>50</td>
<td>10/10</td>
<td>0/3.3</td>
<td>2.25 + 2.25 LGA</td>
<td>EAR99</td>
<td>ADRF5024BCCZPN</td>
</tr>
</tbody>
</table>

**Without TDD High Power Switch**
- ADMV1013/ADMV1014 (SiGe)
- ADMV1017/ADMV1018 (SiGe)

**With TDD High Power Switch and Bypass Mode**
- ADMV1128/ADMV1139 (CMOS SOI)

**Ext. Switch**
- ADRF5300
- ADRF5301 NEW
- ADRF5024

**For More Information, Contact**MMWAVE5G@ANALOG.COM

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What Is ADI’s 5G mmW Front-End Platform Solution?

**Beamformers**

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency (GHz)</th>
<th>Phase Adj Range (°)</th>
<th>Phase Adj Step (°)</th>
<th>Ampl Adj Range (dB)</th>
<th>Ampl Adj Step (dB)</th>
<th>Package (mm)</th>
<th>ECCN Code</th>
<th>Ordering Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMV4801 16T16R beamformer</td>
<td>24 to 29.5</td>
<td>360</td>
<td>5.625</td>
<td>33.4 (Tx) 17 (Rx)</td>
<td>0.5</td>
<td>10 × 10</td>
<td>5A991.b</td>
<td>ADMV4801BCCZ</td>
</tr>
<tr>
<td>ADMV4821 16T16R dual polarization beamformer</td>
<td>24 to 29.5</td>
<td>360</td>
<td>5.625</td>
<td>32.4 (Tx) 17.1 (Rx)</td>
<td>0.5</td>
<td>10 × 10 LGA</td>
<td>5A991.b</td>
<td>ADMV4821BCCZ</td>
</tr>
<tr>
<td>ADMV4828 NEW 16-channel, dual polarization beamformer</td>
<td>24 to 29.5</td>
<td>360</td>
<td>5.625</td>
<td>34.5 (Tx) 28 (Rx)</td>
<td>0.5</td>
<td>10 × 8.5 BGA</td>
<td>5A991.b</td>
<td>ADMV4828BBCZ</td>
</tr>
<tr>
<td>ADMV4828 NEW 16-channel, dual polarization beamformer</td>
<td>37 to 43.5</td>
<td>360</td>
<td>5.625</td>
<td>34 (Tx) 28 (Rx)</td>
<td>0.5</td>
<td>10 × 7 BGA</td>
<td>5A991.b</td>
<td>ADMV4828BBCZ</td>
</tr>
<tr>
<td>ADMV4728 NEW 16-channel, dual polarization beamformer</td>
<td>47.2 to 48.2</td>
<td>360</td>
<td>5.625</td>
<td>34.5 (Tx) 28 (Rx)</td>
<td>0.5</td>
<td>9 × 6 BGA</td>
<td>5A991.b</td>
<td>ADMV4728BBCZ</td>
</tr>
</tbody>
</table>

**RFCMOS—Enabling Power-Efficient Solutions**

**SiGe**
- ADMV4801
- ADMV4821

**SOI**
- ADMV4828 NEW
- ADMV4828 NEW
- ADMV4728 NEW

**RFCMOS—Enabling Power-Efficient Solutions**

**ADMV4828** 24.0 GHz to 29.5 GHz Transmit/Receive Dual Polarization Beamformer

**ADMV4928** 37.0 GHz to 43.5 GHz Transmit/Receive Dual Polarization Beamformer

**ADMV4728** 47.2 GHz to 48.2 GHz, Dual Polarization Beamformer

**ADMV1128** 24 GHz to 29.5 GHz, 5G, Microwave Upconverter and Downconverter

**ADMV1139** 37 GHz to 48.2 GHz, 5G, Microwave Upconverter and Downconverter
What Is ADI’s 5G mmW Ultralow Noise Power Solution?

Silent Switcher Step-Down Regulators

LDO Linear Regulators

Silent Switcher Devices
► LT8625S
► LT8625SP
► LT8625SP-1
► LT8627SP

LDO Linear Regulators
► LT3045
► LT3045-1
► ADM7150/ADM7151
► ADP1765

Ultralow Noise Silent Switcher Step-Down Converters with High PSRR

<table>
<thead>
<tr>
<th>I_{OUT} (A)</th>
<th>V_{IN} (V) Range</th>
<th>V_{OUT} (V) Range</th>
<th>RMS Noise (mV RMS)</th>
<th>Noise Density, 10 kHz (nV/√Hz)</th>
<th>Max Temp</th>
<th>Features</th>
<th>Package (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT8625S</td>
<td>8</td>
<td>2.7 to 18</td>
<td>0 to 6</td>
<td>4</td>
<td>125℃</td>
<td>Internal INTVCC capacitor, fast transient, polyphase</td>
<td>4 x 3 LFQFN</td>
</tr>
<tr>
<td>LT8625SP</td>
<td>8</td>
<td>2.7 to 18</td>
<td>0 to 6</td>
<td>4</td>
<td>150℃</td>
<td>Fast transient, double-side cooling, polyphase</td>
<td>4 x 3 LFQFN</td>
</tr>
<tr>
<td>LT8625SP-1</td>
<td>8</td>
<td>2.7 to 18</td>
<td>0 to 6</td>
<td>4</td>
<td>150℃</td>
<td>Ultralow noise, fast transient, double-side cooling, polyphase; pin-compatible with LT8627SP</td>
<td>4 x 4 LFQFN</td>
</tr>
<tr>
<td>LT8627SP</td>
<td>16</td>
<td>2.8 to 18</td>
<td>0 to 6</td>
<td>4</td>
<td>150℃</td>
<td>Ultralow noise, fast transient, double-side cooling, polyphase</td>
<td>4 x 4 LFQFN</td>
</tr>
</tbody>
</table>

High Power Supply Rejection PSRR >40 dB at 1 MHz LDO Linear Regulators

<table>
<thead>
<tr>
<th>I_{OUT} (A)</th>
<th>V_{IN} (V) Range</th>
<th>V_{OUT} (V) Range</th>
<th>RMS Noise, 10 kHz to 100 kHz (µV RMS)</th>
<th>Noise Density, 10 kHz (nV/√Hz)</th>
<th>Typ PSRR @ 100 kHz (dB)</th>
<th>Typ PSRR @ 1 MHz (dB)</th>
<th>Dropout Voltage (mV)</th>
<th>Quiescent Current (µA)</th>
<th>Package (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT3045</td>
<td>0.5</td>
<td>1.8 to 20</td>
<td>0 to 15</td>
<td>0.8</td>
<td>2</td>
<td>78</td>
<td>76</td>
<td>260</td>
<td>2.2</td>
</tr>
<tr>
<td>LT3045-1</td>
<td>0.5</td>
<td>1.8 to 20</td>
<td>0 to 15</td>
<td>0.8</td>
<td>2</td>
<td>78</td>
<td>76</td>
<td>260</td>
<td>2.2</td>
</tr>
<tr>
<td>ADM7150/ADM7151</td>
<td>0.8</td>
<td>4.5 to 16</td>
<td>1.8 to 5 fixed/1.5 to 5.1 adj.</td>
<td>1.6</td>
<td>1.7</td>
<td>94</td>
<td>62</td>
<td>600</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Low Dropout Voltage LDO Linear Regulators

<table>
<thead>
<tr>
<th>I_{OUT} (A)</th>
<th>V_{IN} (V) Range</th>
<th>V_{OUT} (V) Range</th>
<th>RMS Noise (µV RMS)</th>
<th>Dropout Voltage (mV)</th>
<th>Quiescent Current (µA)</th>
<th>Package (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP1765</td>
<td>5.0</td>
<td>1.1 to 1.98</td>
<td>Adj (0.5 to 1.5), fixed</td>
<td>3</td>
<td>59</td>
<td>5000</td>
</tr>
</tbody>
</table>

SILENT SWITCHER 3 STEP-DOWN REGULATORS

► Eliminate PCB layout sensitivity
► Ultralow quiescent current Burst Mode® minimizes output ripple voltage
► Up to 16 A output from each channel simultaneously (LT8627SP)

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**Option Two: CPE IC Driving BFICs for Greater Antenna Gain**

16-Channel (2 × 8 Dual Polarization)

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- **ADMV1228** 24.0 GHz to 29.5 GHz, 2T2R Dual Polarization UDC + Beamformer
- **ADMV1239** 37.0 GHz to 43.5 GHz 2T2R Dual Polarization UDC + Beamformer
- **ADF4368** 12.8 GHz Wideband PLL/VCO
- **ADMV4828** 24.0 GHz to 29.5 GHz Dual Polarization Beamformer
- **ADMV4928** 37.0 GHz to 43.5 GHz 2T2R Dual Polarization UDC + Beamformer

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