## Applications
- Satellite Communications
- Microwave Radio

## Application Notes
- AN-107: Manual Soldering Technique
- AN-205: Measuring Phase Noise for SFS Series

### Performance Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>1685</td>
<td>1685</td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-106</td>
<td></td>
<td></td>
<td>dBc/Hz</td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-25</td>
<td></td>
<td></td>
<td>dBc</td>
</tr>
<tr>
<td>Spurious Suppression</td>
<td>-80</td>
<td></td>
<td></td>
<td>dBc</td>
</tr>
<tr>
<td>Power Output</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>dBm</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ω</td>
</tr>
<tr>
<td>Settling Time</td>
<td>1.2</td>
<td></td>
<td></td>
<td>mS</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40</td>
<td></td>
<td>85</td>
<td>°C</td>
</tr>
</tbody>
</table>

### Power Supply Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage 1: PLL (Vcc, nom)</td>
<td>3</td>
<td>5</td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Supply Voltage 2: VCO (Vcc, nom)</td>
<td>9</td>
<td>31</td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

### Reference Oscillator Signal

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>10</td>
<td></td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Phase Noise @ 1 kHz Offset</td>
<td>-145</td>
<td></td>
<td></td>
<td>dBc/Hz</td>
</tr>
</tbody>
</table>

### Additional Notes

For Reference oscillator frequency of <20MHz, ensure SR>50V/us. See Analog Devices ADF4106 application note for more details.
**Phase Noise, typ.**

**PHASE NOISE (1 Hz BW, typical)**

![Phase Noise Graph]

**Footprint**

**RECOMMENDED FOOTPRINT**

SEVERAL HOLES Ø 0.015 ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.

![Footprint Diagram]

**Physical Dimensions**

**SFS PIN CONFIGURATION**

1. Vcc (VCO)
2. RF OUT
3. MUX OUT
4. Vcc (CHIP)
5. N/C
6. REF IN
7. DATA
8. ENABLE
9. CLOCK
10. MUX IN
11. CLOCK OUT
12. GND

**PVA PIN CONFIGURATION**

1. Vcc (VCO)
2. RF OUT
3. MUX OUT
4. Vcc (CHIP)
5. N/C
6. REF IN
7. DATA
8. ENABLE
9. CLOCK
10. MUX IN
11. CLOCK OUT
12. GND

LFSuffix = RoHS Compliant. All specifications are subject to change without notice.