Compression IP is used to put more data into a given fiber or microwave "link" in wireless systems. Using Compression a higher data rate can be transmitted on lower speed links which are generally cheaper. This is a goal across the industry but few have achieved. When compressing data, some signal quality is lost. Based on its patented technology, IDT has proven that it can do compression with very little loss of signal quality.

Compression is used to compress data in wireless systems on the link between the Remote Radio Unit and the Baseband Card (both wired over CPRI and CPRI over wireless front haul). IDT is the first company offering commercial IP that can support GSM, WCDMA, and LTE signals at full CPRI data rates, keeping high signal quality at compression rates up to 3:1.

Compression IP makes wireless C-RAN architectures more viable by allowing RRHs to be placed remote from Baseband Pools connected with low cost fiber, saving large amounts of money at the system level. IDT Compression dramatically changes the overall cost of system deployment.
**I2Q USE CASE: 3G/4G BTS-RRH**

- Supports traditional RAN architecture from baseband to Radio
- Supports emerging C-RAN architecture with distributed Radio Unit
- Significantly reduces TCO in wireless network infrastructure deployment.

**TYPICAL PERFORMANCE WITH LTE UPLINK SIGNAL:**
- **COMPRESSION RATIO:** 2.5:1,
- **AVERAGE EVM (%RMS):** 1.67

**INPUT SIGNAL SPECTRUM**

**OUTPUT SIGNAL SPECTRUM**

**I2Q Chronos Mode Demonstration**

<table>
<thead>
<tr>
<th>Signal</th>
<th>Parameters</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTE</td>
<td>Bandwidth (MHz)</td>
<td>Sample Rate (Msps)</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>30.72</td>
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