

## UMTS PICOCELL FRONT END MODULE

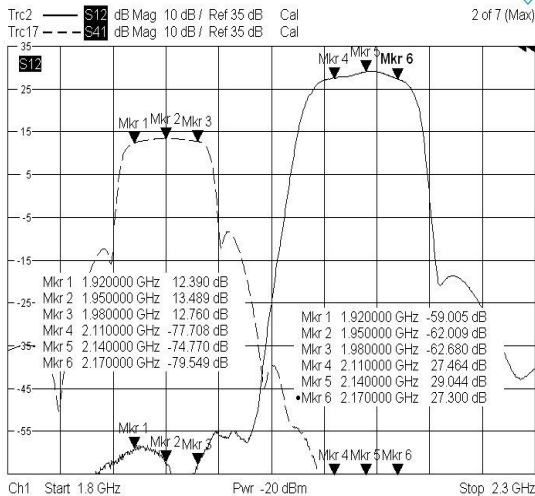
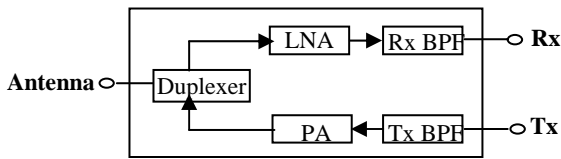
### DESCRIPTION

The MODEL VFM1019C is a UMTS Node B Local Area front end module (FEM). It is designed to replace all of the RF components that would be typically used in a Node B local area front end. It will accept a 0 dBm signal at the Tx port. It is RoHS compliant and lead-free. It has a patent pending design.

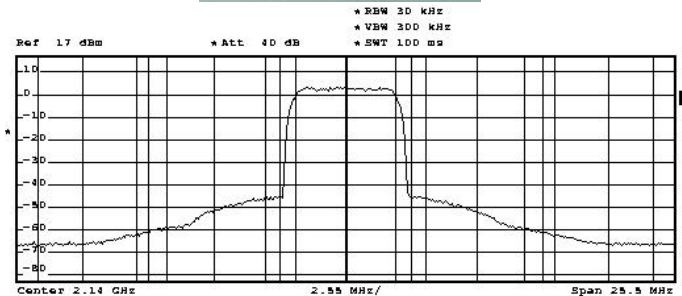
### FEATURES

- Scalable PA capable of delivering 24 dBm at the antenna port while meeting TS25.104 R6.
- Distributed filters offering excellent isolation and harmonic suppression.
- Pre-driver included
- LNA with Bypass mode to increase receiver linearity

**FEM Simplified Block Diagram**



**Tx, Rx Gain**



Parameter	Value	Parameter	Value
<b>Tx Channel Bandwidth</b>	3.84 MHz	<b>W-CDMA 3GPP FDD Power</b>	23.23 dBm
<b>Adjacent Channel Bandwidth</b>	3.84 MHz	<b>Lower</b>	-52.54 dB
<b>Spacing</b>	5 MHz	<b>Upper</b>	-52.79 dB
<b>Alternate Channel Bandwidth</b>	3.84 MHz	<b>Lower</b>	-67.41 dB
<b>Spacing</b>	10 MHz	<b>Upper</b>	-67.39 dB

**ACLR @ 2140 MHz**

### Typical specifications:

#### TRANSMIT

Frequency range 2110 – 2170 MHz  
 PA supply voltage 8V  
 PA gain 28 dB  
 Power @ antenna 24 dBm  
 Attenuation (2.25–12.75 GHz) > 30 dB

#### RECEIVE

Frequency range 1920 – 1980 MHz  
 LNA supply voltage 4V  
 LNA gain 13 dB  
 Noise figure 4 dB  
 Attenuation (2.17–12.75 GHz) > 30 dB

Tx to Rx isolation @ antenna port 85 dB typical  
 Tx input to Rx output isolation 65 dB typical  
 Size: 31.0 x 25.1 x 6.75 mm  
 Temp. range: -30C to 75C