

## UMTS PICOCELL FRONT END MODULE

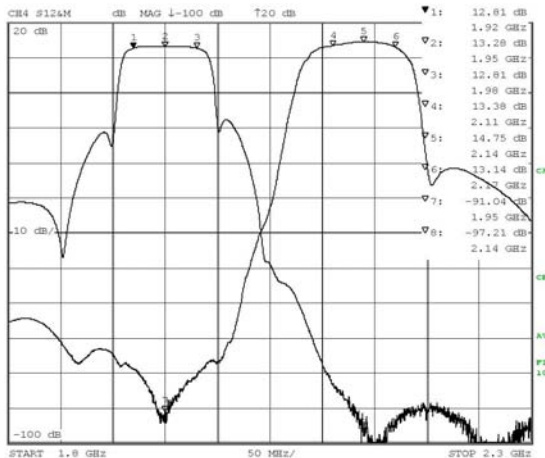
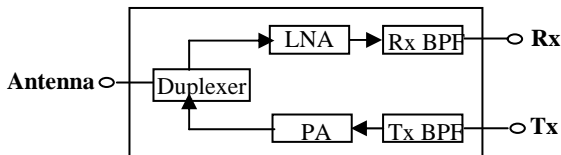
### DESCRIPTION

The MODEL VFM1004A 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 is RoHS compliant and lead-free. It has a patent pending design.

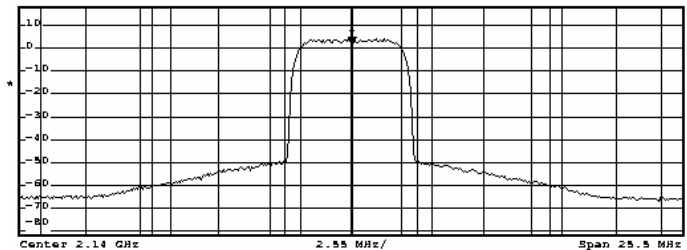
### FEATURES

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

FEM Simplified Block Diagram



Tx, Rx Gain



Tx Channel			
Bandwidth	3.84 MHz	M-CDMA 3GPP FDD	Power
Power		Lower	-56.94 dB
Power		Upper	-57.01 dB
Adjacent Channel			
Bandwidth	3.84 MHz	Lower	-67.16 dB
Spacing	5 MHz	Upper	-67.51 dB
Alternate Channel			
Bandwidth	3.84 MHz	Lower	-67.16 dB
Spacing	10 MHz	Upper	-67.51 dB

ACLR @ 2110 MHz

### Typical specifications:

#### TRANSMIT

Frequency range 2110 – 2170 MHz  
 PA supply voltage 8V  
 PA gain 15 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