

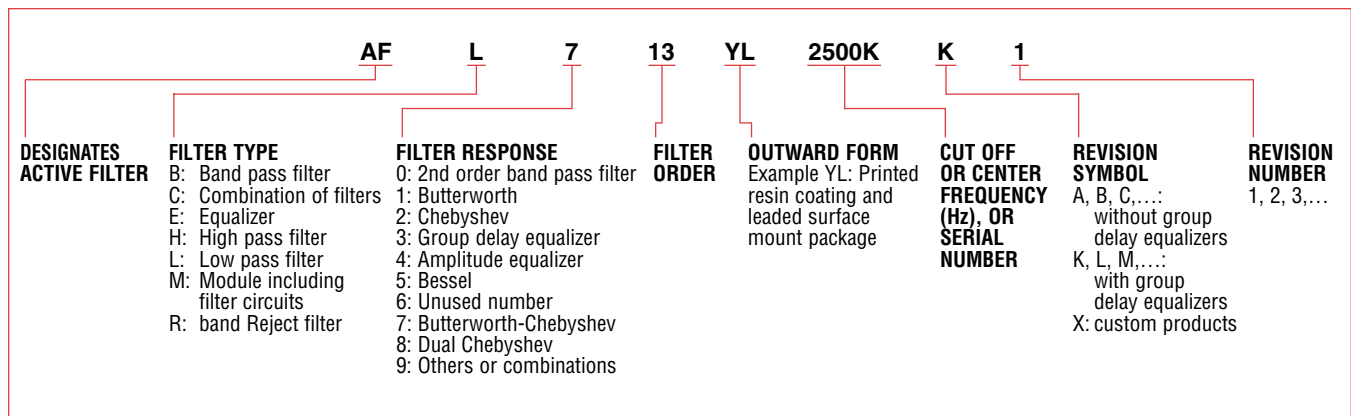
#### FEATURES

- Wide filtering frequency range available (up to 30MHz)
- High precision: (examples)
  - 1) 0.3dB typical pass band ripple for AFC820YL630KK1T
  - 2) 4mrad<sup>2</sup> typical phase distortion for AFC820YL630KK1T
  - 3) 30nsec. typical GDT deviation for AFM834YL1900KK1
- Excellent IM suppression: (ex.) +28dBm IP3 for AFC820YL630KK1T
- No insertion loss
- Low current consumption: (ex.) 4mA typical for AFC820YL630KK1T
- Small size and surface mountable
- Added functions easily integrated (e.g.: built-in 75Ω load drivers, gain adjustment with external resistor values, multiple filter chains)

#### APPLICATIONS

- Wireless communications: cdmaOne, cdma2000, W-CDMA base station and WLL
- Wired communications: xDSL modem, cable modem
- Audio/Visual Equipment: DTV, HDTV, DSS-STB, MPEG2 video processor

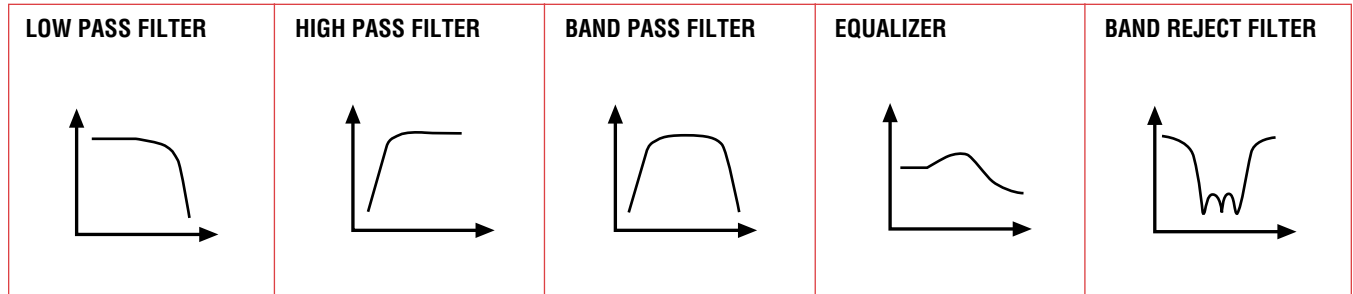
#### PART NUMBERING SYSTEM



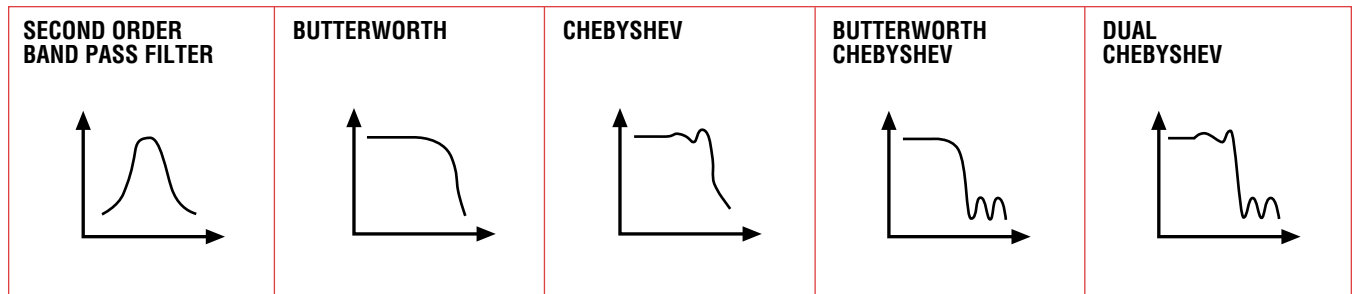
#### SPECIFICATIONS (Represents only a few examples.)

Part Number	Applications	Filter Function	Cutoff/Center Freq.	Output Level	Number Channels	Supply Voltage & Icc	Stopband Rejection (dB)	Passband Ripple (dB)	GDT Dev. or Phase Dev.	Input/Output Impedance
AFC820YL630KK1T	cdmaOne base station & WLL [IS-95, 1.2288Mcps]	Low Pass for transmitter & receiver baseband	630kHz	0dB	2	+5V 4mA (typ.)	>35dB @ 900kHz ~ 5MHz	<0.6dB @ 1kHz ~ 630Hz	Phase Distortion <10 mrad <sup>2</sup> @ 1kHz ~ 630kHz	High input imp./ Low output imp.
AFC818YL2MK1T	cdma2000 (W-CDMA, UMTS) base station [3.6864, (3.84)Mcps]	Low Pass for transmitter & receiver baseband	1.84MHz (2MHz)	0dB	2	±5V 4mA (typ.)	>35dB @ 5MHz ± 2MHz	<1.0dB @ 100kHz ~ 1.84MHz	<200nsec @ 100kHz ~ 1.84MHz	High input imp./ Low output imp.
AFM834YL1900KK1	W-CDMA, UMTS base station [3.84Mcps]	Low Pass for transmitter & receiver baseband	1.92MHz	-6dB	2	±5V 28mA (typ.)	>55dB @ 5MHz ± 2MHz	<0.6dB @ 1kHz ~ 1.5MHz	<60nsec @ 1kHz ~ 1.92MHz	High input imp./ 50 ohms typ. for output imp.
AFM712YL30MK1	DTV (ATSC) HD-STB	Low Pass with output Amp. for YUV video-out	30MHz & 15 MHz	-7dB	3	+9V 95mA (max.)	>20dB @ 44MHz	-0.8dB ~ 1.2dB @ 20MHz normalized at 100kHz	10nsec ~ 20nsec @ 1MHz 31nsec ~ 51nsec @ 27MHz	High input imp./ 75 ohms typ. for Output 1 & low imp. for Output 2

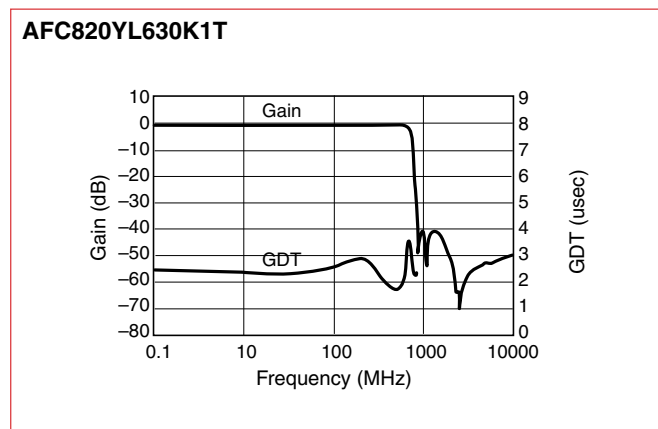
#### TYPICAL FILTER TYPES



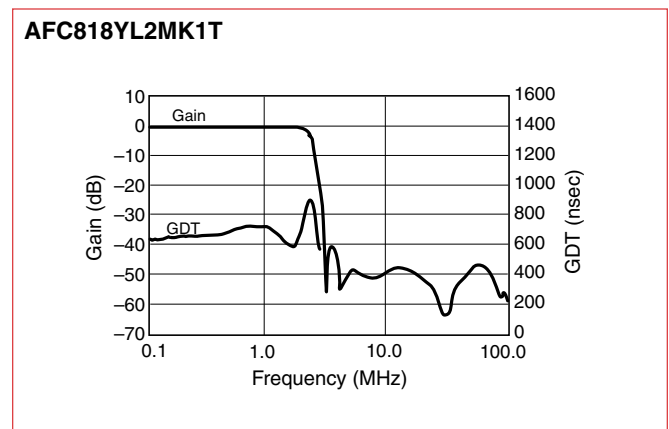
#### TYPICAL FILTER RESPONSES



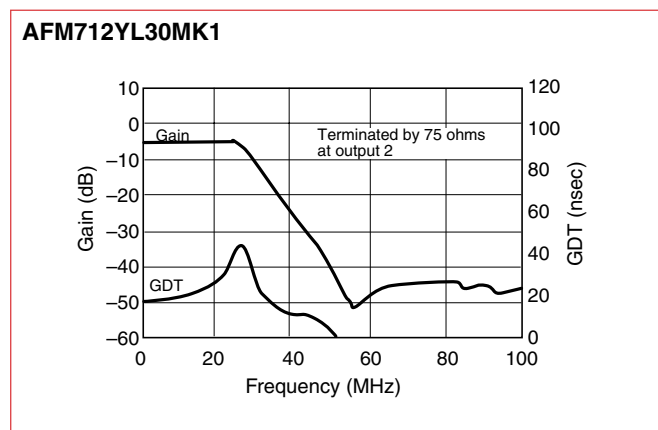
#### TYPICAL OVERALL CHARACTERISTICS



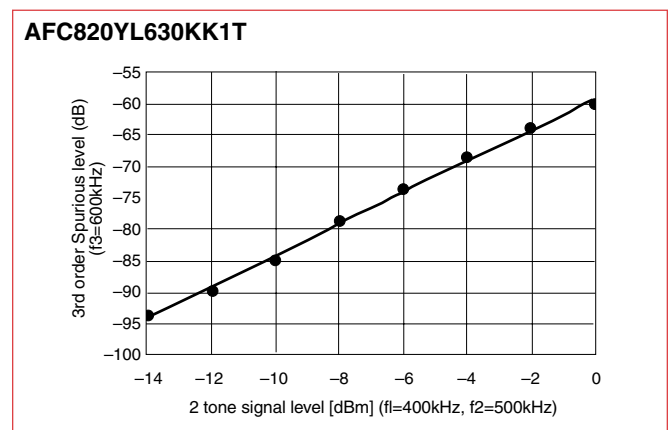
#### TYPICAL OVERALL CHARACTERISTICS



#### TYPICAL OVERALL CHARACTERISTICS



#### TYPICAL IM CHARACTERISTICS



HIGH FREQUENCY DEVICES

# HIGH FREQUENCY DEVICES

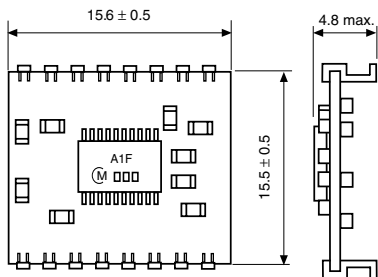
## HIGH FREQUENCY ACTIVE FILTERS

### DIMENSIONS

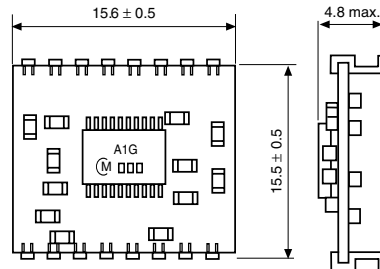
#### MECHANICAL DRAWING—HF-AF

**DIMENSIONS: mm**

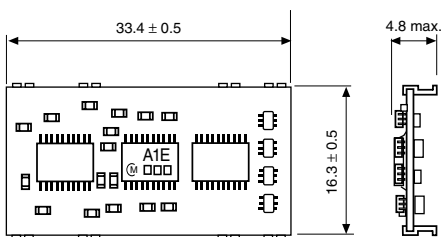
**AFC820YL630KK1T**



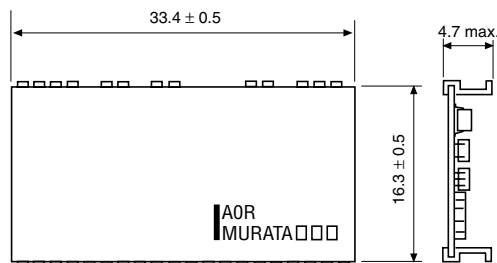
**AFC818YL2MK1T**



**AFM834YL1900KK1**

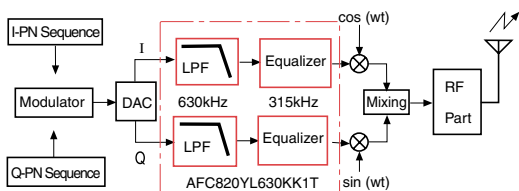


**AFM712YL30MK1**



#### TYPICAL APPLICATIONS OF LOW PASS FILTER & EQUALIZER

**CDMA BASE STATION APPLICATION**



**DTV APPLICATION**

