



# XC3028/L Product Brief

## XC3028/L Ultra Small, Hybrid Terrestrial and Cable TV Receivers



### OVERVIEW

The XC3028 and XC3028L are single-chip hybrid analog AND digital TV tuners that combine both tuning and analog demodulation functions in one small package. All analog and digital TV formats in the 42-864 MHz band on either cable or terrestrial broadcast channels are supported. A high performance integrated filter and DSP help the XC3028/L eliminate external SAW filters to reach higher performance. Xceive's breakthrough patent-pending technology provides a powerful combination of high dynamic range with a large tunable range uniquely enabling superior pictures.

The XC3028L is a low-power version optimized for portable applications, such as portable LCD-TVs, USB TV sticks, mini express cards, and notebooks. Both tuners have the same pin-out and package.

### FEATURES:

World's smallest Hybrid TV tuner:

- Fully integrated RF-to-Baseband
- No metal shield required

Digital picture carrier recovery:

- Alignment-free
- Quartz-stable and accurate
- No external tunable parts

Built-in VIF/SIF circuit

Supports all analog TV standards:

- NTSC, PAL, SECAM
- CVBS, SIF and audio output

Supports all digital TV standards:

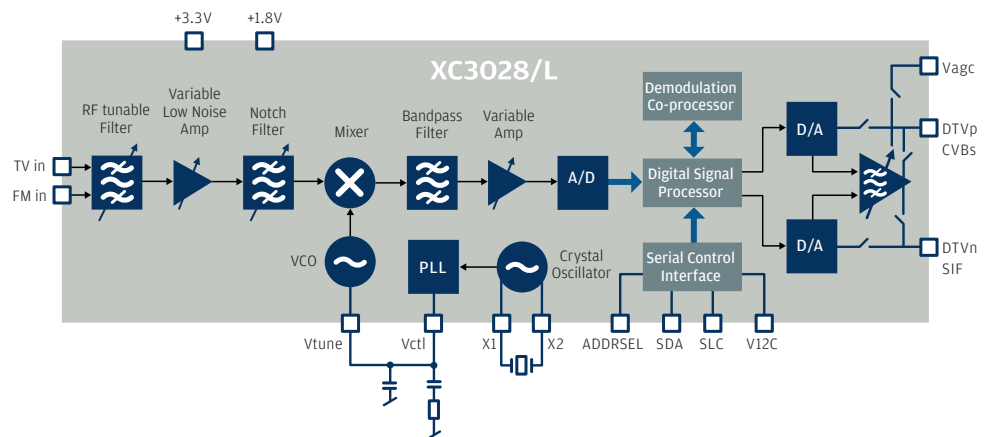
- ATSC, DVB-T, ISDB-T, DMB-T, DVB-C

IIC bus controlled

Ultra small 48-pin QFN package,  
Leadfree

### SPECIFICATION

Outline Dimensions	7 x 7 x 0.85 mm
Supply Voltage (DC)	1.8V, 3.3V
System setting time	5ms
Input Impedance	75 ohms
VSWR (typical)	2.5
Noise Figure (typical)	6dB
Phase noise @10KHz (typical)	-85dBc/Hz
CTB	-63dBc
Image rejection	60dB
AGC range	80dB
Video S/N (unweighted)	48dB
Frequency range	42 - 864MHz
XC3028 Power Dissipation	< 1.2W
XC3028L Power Dissipation	< 1.0W



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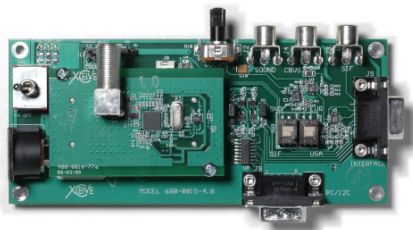
## Ultra Small, Hybrid Terrestrial and Cable TV Receivers

Currently supported television standards

System	Color Standard	Audio Standard (identifier)
I	PAL	FM + NICAM (I)
B	PAL	FM + FM (B/G-A2)
B	PAL	NICAM + FM (B/G-NICAM)
G	PAL	FM + FM (B/G-A2)
G	PAL	NICAM + FM (B/G-NICAM)
L	SECAM	AM +NICAM (L/DK3)
L'	SECAM	AM +NICAM (L/DK3)
D/K	PAL	FM + FM (DK2)
D/K	PAL	FM + NICAM (DK2)
D/K	SECAM	FM + FM (DK1)
D/K	SECAM	FM + FM (L/DK3)
M/N	NTSC/PAL	FM + FM (M/N-A2)
M/N	NTSC/PAL	BTSC (M/N-BTSC/EIAJ)
M/N	NTSC/PAL	EIAJ (M/N-BTSC/EIAJ)
M/N	NTSC/PAL	MTS Mode <sup>1</sup> (M/N-BTSC/EIAJ)
DTV6	6MHz - ATSC/DVB-C/DVB-T/ISDB-T/DOCSIS	
DTV8	8MHz - DVB-C/DVB-T	

The XC3028 is compatible with most DTV standards.

<sup>1</sup> In this mode the XC3028 demodulates the BTSC/EIAJ carrier and outputs the corresponding composite sound signal



### EVALUATION BOARDS

Xceive makes available evaluation boards for select customers. Each evaluation kit contains a test module, detailed application notes to guide installation and software. To inquire about receiving evaluation boards, contact us at: [sales@xceive.com](mailto:sales@xceive.com)

### ONLY XCEIVE TUNERS OFFER:

#### Xceive ClearView

Delivers an image that's sharper and cleaner than any conventional CAN tuner, even in the highest-end TVs.

#### QuickTune

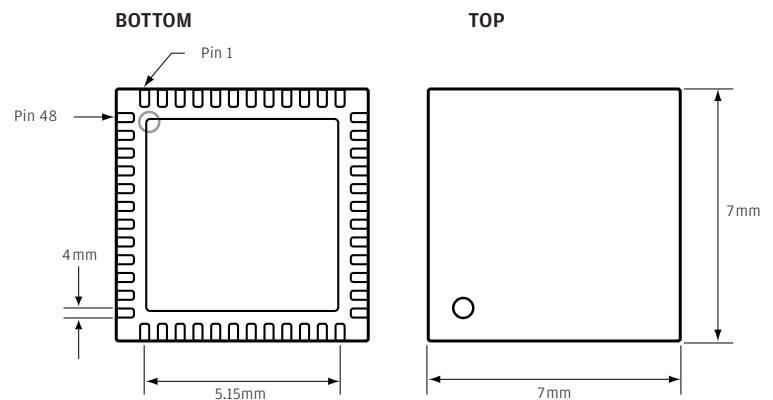
Technology for ultra-fast switching between channels-making channel surfing more enjoyable and general channel scanning far faster.

#### ChannelVista™

The first of its kind, multiple Picture-In-Picture, live on screen. Thanks to Xceive QuickTune technology, this breakthrough feature for the latest TVs requires only one tuner.

The package type is QFN48 (48 pins)

The thickness of the package is 0.8mm Minimum and 0.9mm Maximum.



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