XC4000
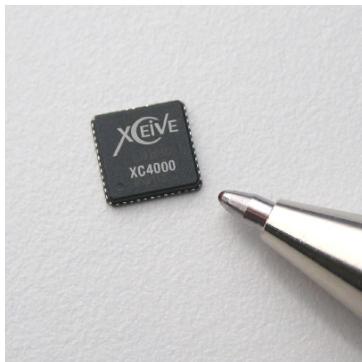## Product Brief

XC4000
Ultra Small, Hybrid Worldwide Terrestrial TV Receiver

OVERVIEW

The XC4000 is a single-chip hybrid analog AND digital TV tuner combining both tuning and analog demodulation functions in one small package. It's the logical upgrade for PC and TV applications requiring an economical solution to adding superior performance anywhere low-power and high sensitivity is required.

The XC4000 supports all analog and digital TV formats worldwide in the 42-864MHz band broadcast channels. On-board, high performance, integrated SAW filters, DSP controller and Video and Sound IF significantly reduce the BOM. Plus, Xceive's breakthrough patent-pending technology provides a powerful combination of high dynamic range with a large tunable range that enables superior pictures.

The XC4000 is pin-to-pin compatible and BOM interchangeable with the XC3028. So, manufacturers can migrate to higher performance anytime without costly re-design.

ONLY XCEIVE TUNERS PROVIDE:

Xceive ClearView
Delivers an image that's sharper and cleaner than any conventional CAN tuners.

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.

FEATURES:

World's smallest Hybrid TV tuner:
• Fully integrated RF-to-Baseband
• No metal shield required
• Alignment-free
• No external tunable parts

Built-in VIF/SIF circuit

Supports all analog TV standards:
• NTSC, PAL, SECAM
• CVBS, SIF or mono-sound output
• Works well for non-standard signals,
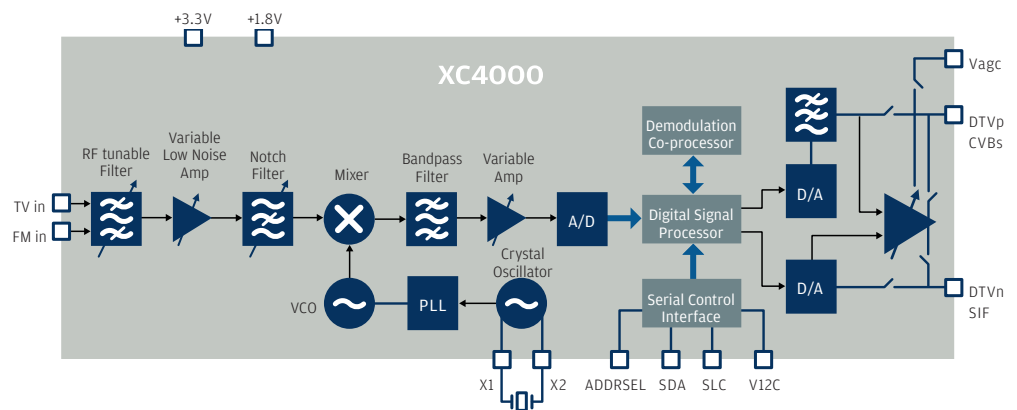 including overmodulation

Supports all digital TV standards:
• ATSC, DVB-T, ISDB-T, DMB-TH
• DVB-C/QAM64

Quick tuning supports ChannelVista™

Easily monitors signal performance

IIC bus controlled

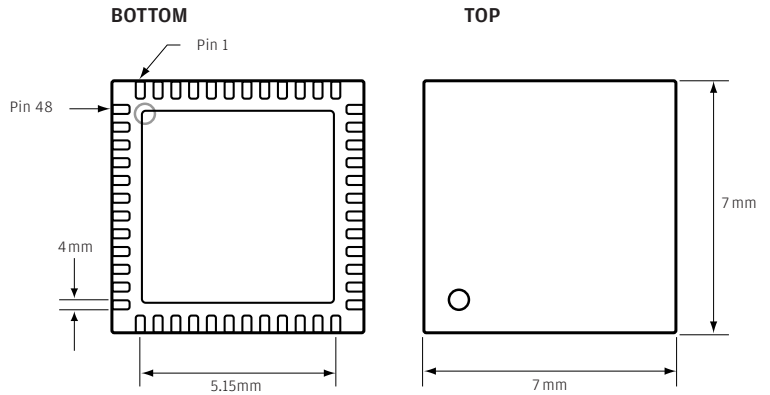Ultra small 48-pin QFN package, Leadfree

XC4000
Product Brief

The XC4000 supports all analog and digital TV formats worldwide in the 42-864MHz band.

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[1] (M/N-BTSC/EIAJ)
DTV6	6MHz - ATSC/DVB-C/DVB-T/ISDB-T/DOCSIS	
DTV7	7MHz - DVB-C/DVB-T	
DTV8	8MHz - DVB-C/DVB-T	

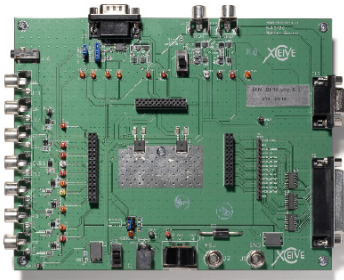[1] In this mode the XC4000 demodulates the BTSC/EIAJ carrier and outputs the corresponding composite sound signal

The package type is QFN48 (48 pins)
The thickness of the package is 0.8mm Minimum and 0.9mm Maximum.

SPECIFICATIONS

Outline Dimensions	7 x 7 x 0.85mm	CTB	−63dBc
Supply Voltage (DC)	1.8V, 3.3V	Image rejection	60dB
System setting time	5ms	AGC range	90dB
Input Impedance	75ohms	Video SNR (unweighted)	50dB
VSWR (typical)	2.5	Frequency range	42-864MHz
Noise Figure (typical)	5dB	Power Dissipation	<1.1W
Phase noise @10KHz (typical)	−85dBc		

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

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