

FEATURES

- Gilbert cell mixer including LNA.
- Wideband VCO and LO buffer to mixer.
- Internal varactor and resonator circuit.
- Internal 1087.75 MHz first IF SAW filter with differential input & output.
- Shielded metal lid over a LCC (7.6mm x 10.2mm).

APPLICATIONS

- Cable Telephony
- High Speed Cable Modems



M1

**Shielded Metal lid over a LCC
7.6mm x 10.2mm 24 pin MCM Pkg.**

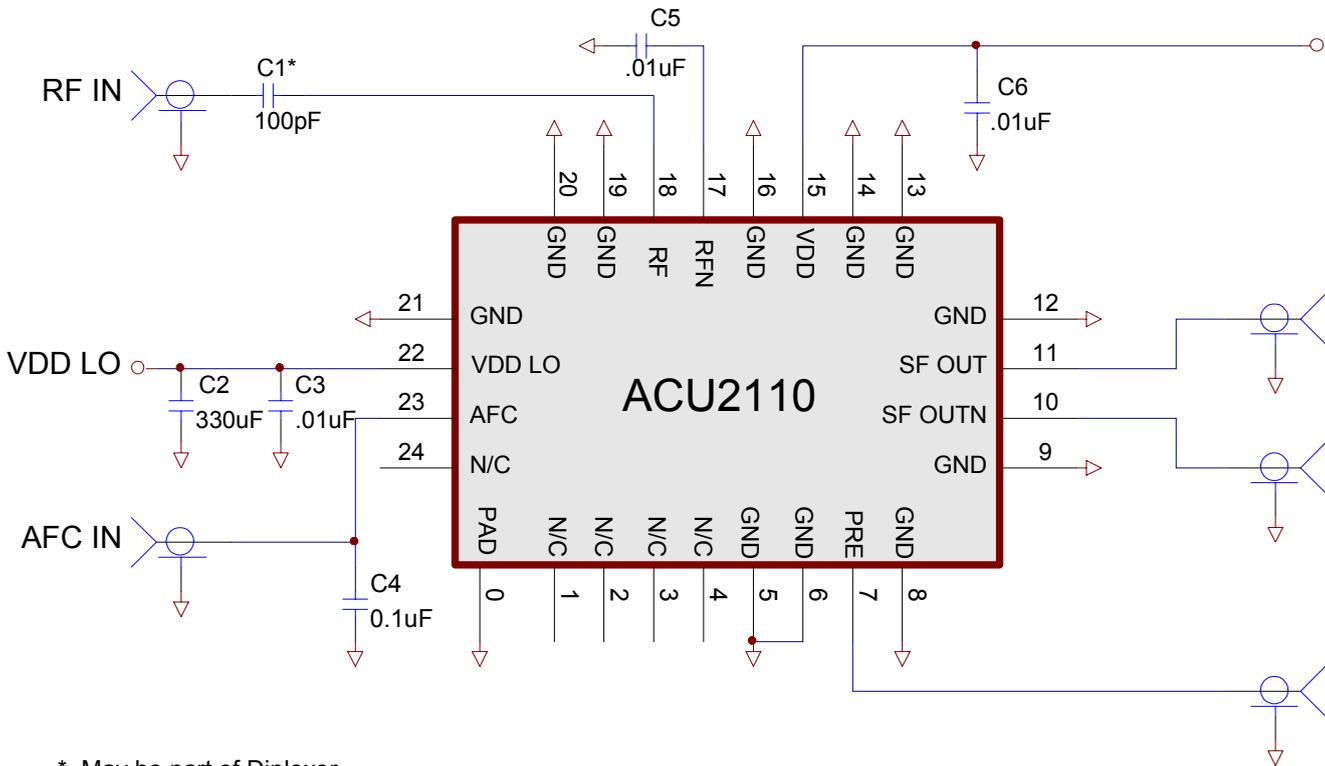
DESCRIPTION

The ACU2110 is a CATV upconverter module, that when used with a synthesized downconverter, allows integrating the tuner on the same PC board along with the rest of the electronics for data applications. These applications included digital video, telephony, and cable modems. The module consists of a modified GaAs upconverter, SAW filter, and varactor diode in a hermetic LCC package.

Electrical Characteristics (Temperature Range -40 to +85°C)

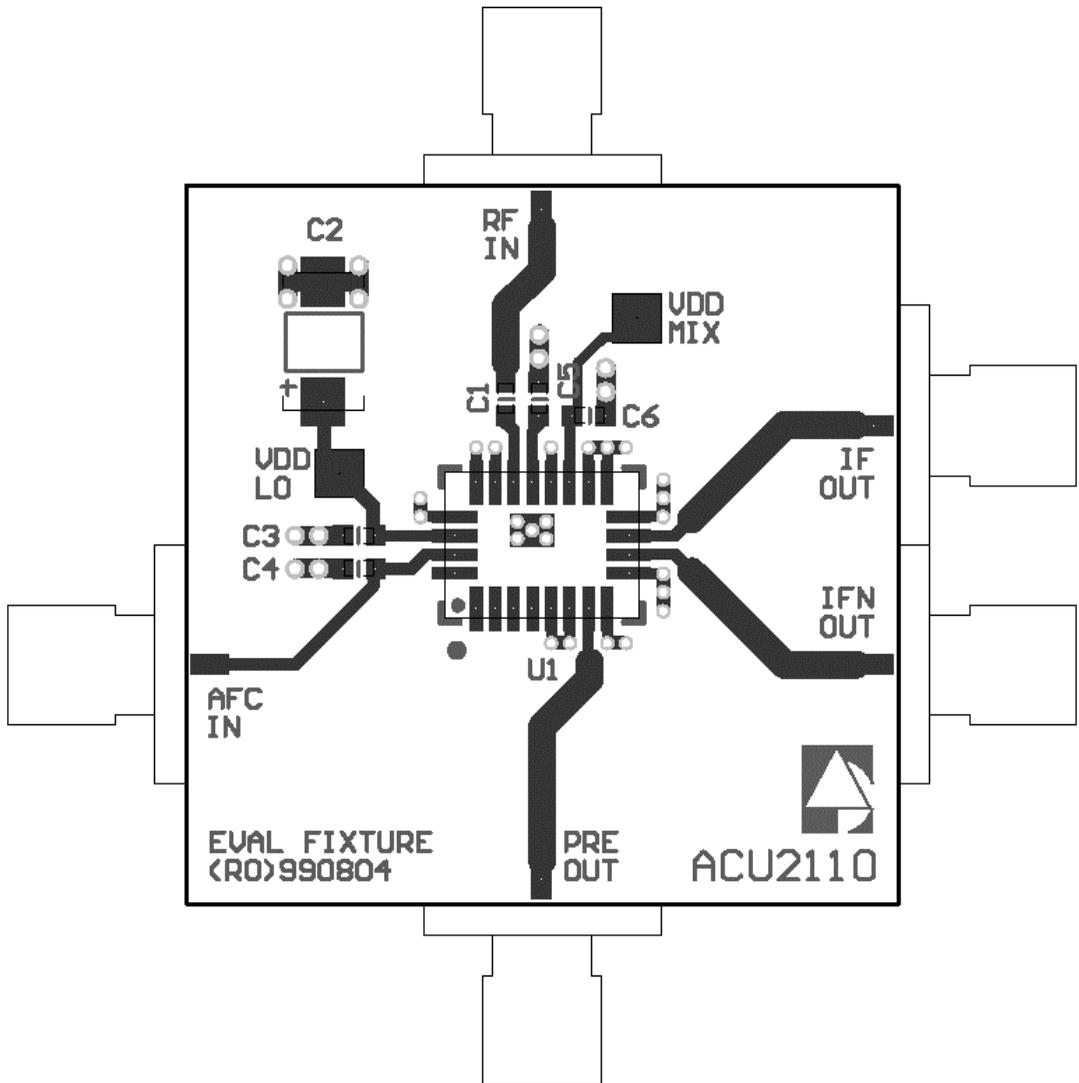
Parameter	Min	Typ	Max	Units
IF frequency	-	1087.75	-	MHz
Supply voltage	4.75	5.00	5.25	V
Supply current	-	-	170	mA
Noise figure to IF1	-	-	7	dB
Conversion gain to IF1 (including filter)	1	-	-	dB
AGC range	15	-	-	dB
Crossmodulation ratio @ 15dBmV 15.75kHz square wave	48	-	-	dBc
Composite second order beat (15 dBmV 120 channels)	53	-	-	dBc
Composite triple beat (15 dBmV 120 channels)	53	-	-	dBc
Second order input intercept	40	-	-	dBm
Third order input intercept	17	-	-	dBm
Image rejection	50	-	-	dB
Phase noise @ 1KHz	-	-	-48	dBc/Hz
Phase noise @ 10KHz	-	-	-85	dBc/Hz

TEST SCHEMATIC

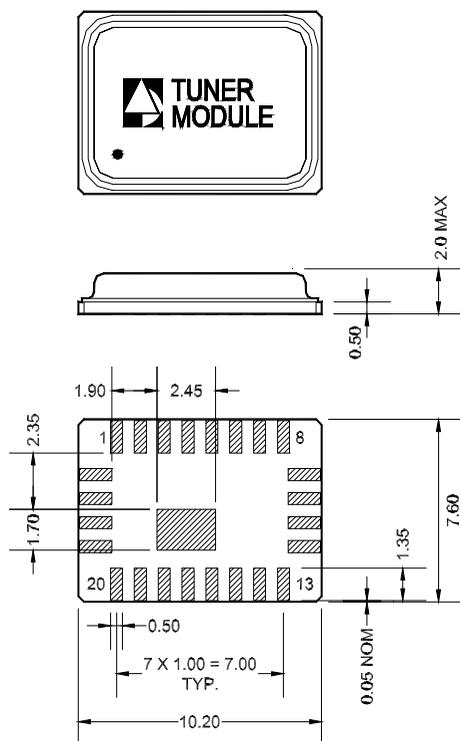


* May be part of Diplexer

Text Fixture



Package Outline



PIN	FUNCTION	PIN	FUNCTION
1	N/C	13	SFI GND
2	N/C	14	SFI GND
3	N/C	15	VDD MIX
4	N/C	16	AGC
5	GND	17	RF
6	GND	18	RFN
7	PRESCALER OUT	19	CUR ADJ 2
8	SFO GND	20	CUR ADJ 1
9	SFO GND	21	GND
10	SF OUTN	22	VDD LO
11	SF OUT	23	AFC IN
12	SFI GND	24	N/C



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