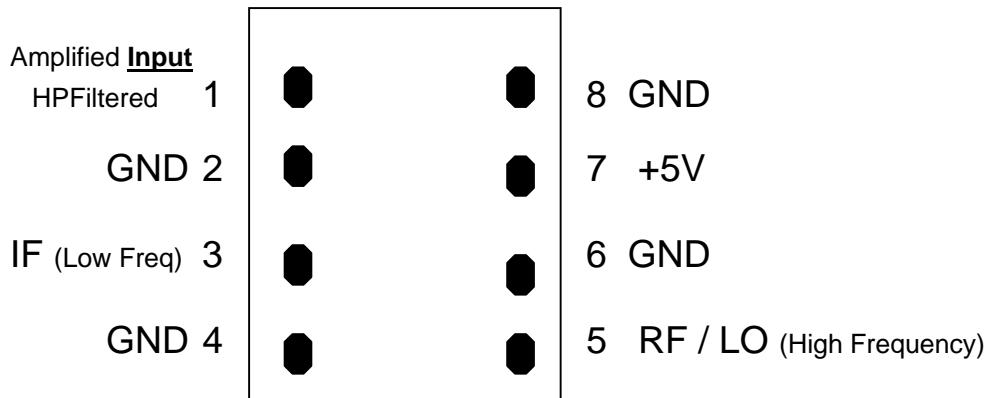


## ACMY-1228H Mixers

Andy Talbot G4JNT

Available through uWave Group Chip Bank



Pin 1 RF input (or low level LO). Goes through a high pass filter, cutoff in the low VHF region into an internal amplifier then a mixer port.

Pin 3 Mixer input, through low frequency transformer. Freq response extends down low.

Pin 5 Mixer input via higher frequency winding. Appears to fall off below 300MHz

It is difficult to say which is LO and which is RF. Assume the lower frequency port, pin 3 is IF.

Using the mixer as a downconverter, applying 1300MHz to Pin 1 at a level of -26dBm, LO at 1150MHz to pin 5 gives +12dB overall gain with 150MHz IF out from pin 3

View of its insides (pin 1 top left). Spot the two spiral inductors forming the high pass filter on the amplified input Pin 1. The multiturn transformer at the bottom is on the IF port, Pin 4. Bottom right, the smaller transformer with single turn secondary going to pin 5 RF Port

Second photo is an attempt to do an optical X-Ray view of the substrate to see the tracks. (It did reveal the High Pass Filter on the amplified input))

### Frequency Response

RF ports function above 300MHz, and after just a quick test, appear to have little degradation up to at least 1500MHz

