

***Radio Astronomy Supplies***  
***6.6 GHz Methanol Converter System***

**System Setup and Operation**

**Rev A - 2003**

**Radio Astronomy Supplies**  
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# Setup and Description

The Methanol Converter System consists of the following:

- **Feedhorn**
- **LNA**
- **Converter**

**Feedhorn** - The Feedhorn is a simple waveguide with an N type connector and monopole. The feedhorn is connected directly to the LNA.

**LNA** - The LNA (Low Noise Amplifier) is a state-of-the-art, low noise figure amplifier. This module amplifies the 6.6 GHz signal and routes it to the converter. Power requirements for this module: +12Vdc @ 100ma.

**Converter** - The Converter module receives the signal from the LNA and down-converts from 6.6 GHz to 1420 MHz. This module also functions as a low noise and gain stage. The 1420 MHz IF signal is connected to the SpectraCyber System, as indicated in the block diagram. Power requirements for this module: +12.5Vdc @ 200ma.

**Note:** *The LNA should be attached directly to the feedhorn and, the converter at the base of the antenna. Both modules should be shielded from moisture, direct water run-off and from direct solar heating.*

