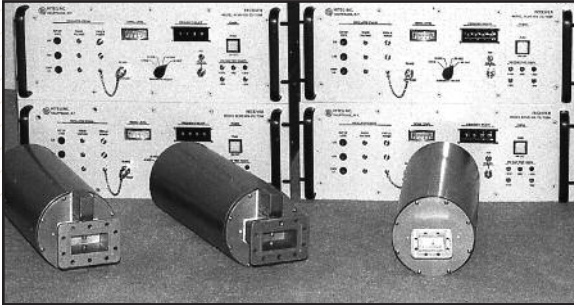
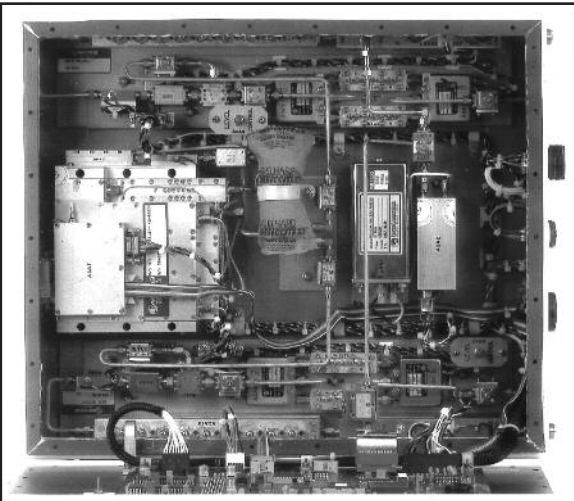


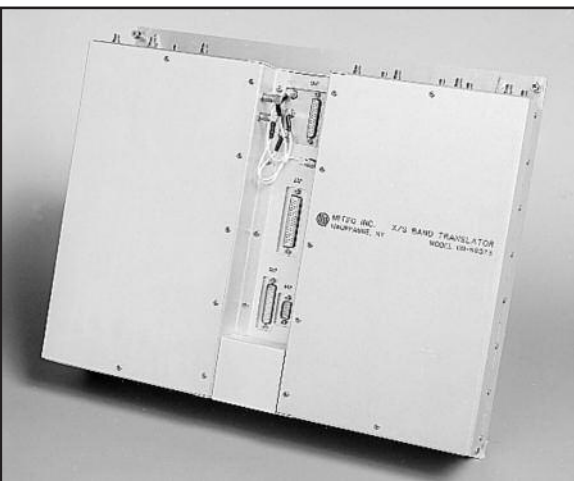
Communication Products Group Custom Capabilities



Custom Outline Downconverters



Dual-Channel Ku-Band Outdoor Converter



Custom Packaged Test Translator

The following pages represent a small sample of the custom equipment built by the Communication Products Group. Our comprehensive engineering and technology base in the RF, analog, digital and microprocessor fields, allow us to offer these products economically and in short lead times. Many standard products were, at their initial design, the result of a custom product. These efforts also allow continual exploration of new technologies and design techniques. The Communication Products Group designs and manufactures products in three areas which can be defined as follows:

STANDARD CATALOG PRODUCTS

Models, performance and options as published in the applicable data sheets.

SEMI-CUSTOM PRODUCTS

Modification of, or adaptation of, standard catalog units to meet particular customer specifications.

CUSTOM PRODUCTS

New designs specific to customer requirements.

There are three overall aspects, which define Custom Equipment: Equipment Type, Performance Characteristics, and Packaging Type.

Equipment Type

- Upconverters
- Downconverters
- Combined up/downconverters (independent and shared local oscillators)
- Test loop translators
- Frequency block converters
- Amplifier systems
- Receivers
- Signal generator
- Noise sources
- Satellite simulators

This is by no means a complete listing of MITEQ products.

Performance Characteristics

Performance Specifications/Characteristics make up the core of custom equipment development. Key parameters must be mutually understood and agreed upon by both the customer and MITEQ's engineering staff to ensure accurate product development. Critical Design Reviews are strongly recommended to meet this objective.

Performance characteristics of standard MITEQ products are available from a number of specific data sheets. These data sheets can provide an excellent starting point from which to discuss specific performance requirements.

Many custom or semi-custom products are the result of unique packaging requirements. MITEQ produces various Packaging Types, including:

- Rack mount
- Outdoor mount
- Plate mount
- Weather resistant (use in semi-protected environments)
- Pressurized (use in harsh environments)
- Special outline packages
- Light weight
- Compact size

Special Labeling

OEM, private or special labeling can be provided on any MITEQ product.

Custom Equipment

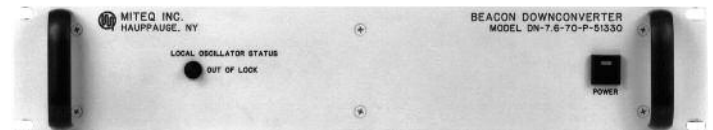
Multiband Test Translator



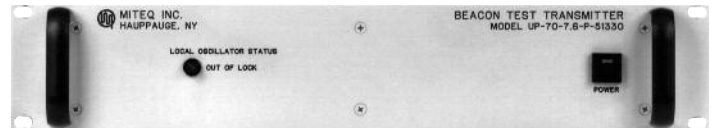
Custom integrated subsystems



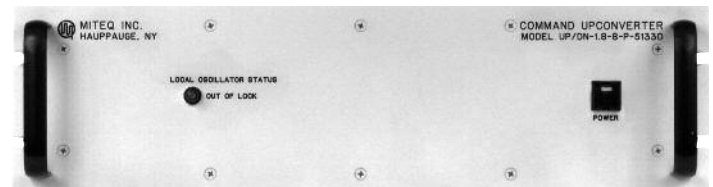
Power Supply and Reference Distribution



Beacon Downconverter

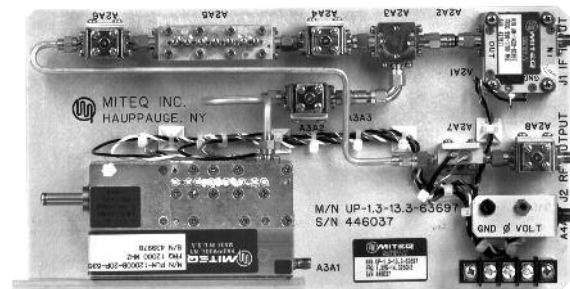


Beacon Test Transmitter



Command Upconverter

Plate-Mounted Ka-band Test Translators



This Ka-band translator is designed to be used as test equipment. This unit is mounted in a portable, battery-operated enclosure for field testing of an outdoor Ka-band transceiver.

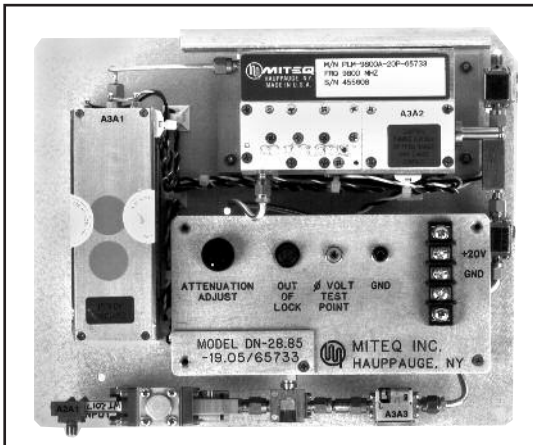
Custom Equipment

Custom Weather Resistant Enclosures



This small self-contained temperature stabilized Ka-band noise source was provided for offline system testing.

Plate-Mounted Assemblies



Frequency block converter for laboratory use

Portable Equipment



Bench Top Assemblies



The Custom Equipment Manufacturing Process

- Step 1** The customer defines the requirement in terms of RF, functional and mechanical specifications. Please note that custom equipment development requires a great deal of customer interaction and communication with the MITEQ engineering staff.
- Step 2** MITEQ reviews specification, noting any modifications that may be required.
- Step 3** MITEQ provides a price and delivery quotation. With a custom equipment requirement there is, very often, an additional one-time charge defined as nonrecurring engineering (NRE). This cost covers the additional engineering fees and documentation requirements.
- Step 4** Approximately thirty days after receipt of order the customer has the option of meeting with the engineers at MITEQ's facility to review the design. MITEQ highly recommends this review for complicated designs.
- Step 5** Manufacturing, testing, and delivery of product(s).

