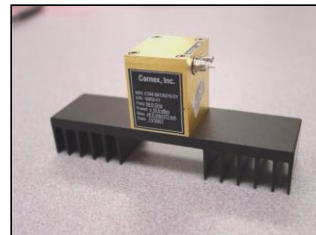
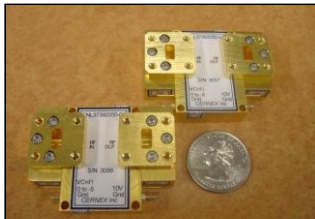
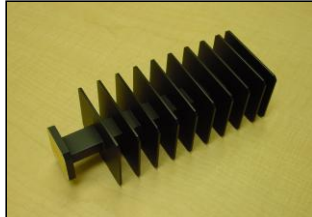


CERNEX, Inc.

**YOUR ULTIMATE SOURCE FOR ALL YOUR
RF , MICROWAVE , MILLIMETER-WAVE
PRODUCTS & SUB-SYSTEMS**



**AMPLIFIERS, ANTENNAS, MULTIPLIERS,
SOURCES DETECTORS, SWITCHES,
MIXERS, WAVEGUIDE PRODUCTS,
MILLIMETER-WAVE COMPONENTS,
FERRITE PRODUCTS AND SUB-SYSTEMS**

CERNEX, Inc. 766 San Aleso Avenue, Sunnyvale, CA 94085 Tel. (408) 541-9226, Fax (408) 541-9229
www.cernex.com

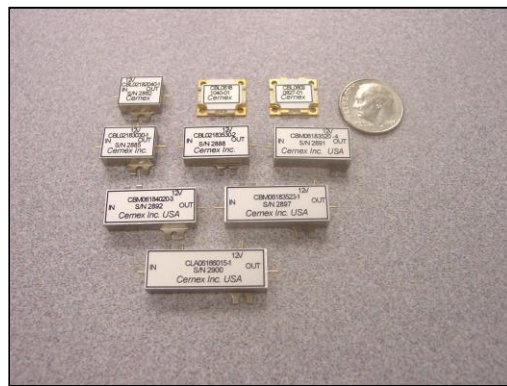
INTRODUCTION

CERNEX, INC., is a company with a commitment to product excellence and technological expertise in state-of-the art thin-film hybrid and discrete microwave and millimeter-wave components, and sub-assemblies up to **325Ghz**. Our company was established to provide products and services to growing markets such as defense, aerospace, wireless telecommunications and fiber optic communications industry.

The company was incorporated in 1988 to develop and manufacture high quality thin-film hybrid gain modules, frequency multipliers, amplifiers, and various other microwave and millimeter-wave products for the commercial and military markets. Our excellent technical staff and production facility enable the company to respond quickly to customers' needs.

Our goal is to achieve the highest quality performance, reliability, service and on-time delivery. This goal has allowed our company to maintain a steady growth over the past few years.

Our management team consists of a team of senior design engineers and sales/marketing staff with over 500 man-years of experience in the microwave and millimeter-wave businesses.



NOMENCLATURE (08/09)**AMPLIFIERS (Up to 110 Ghz)**

Gain Modules	CGM
Broadband Low Noise	CBL
Broadband Med. Power	CBM
Broadband High Power	CBP
Narrowband Low Noise	CNL
Narrowband Med. Power	CNM
Narrowband High Power	CNP
Limiting Amplifiers	CLA
Gain Control Amplifiers	CGC
Temp. Control Ampl.	CTA
Gain/Temp. Control Ampl.	CGT
Gain Slope Amplifiers	CGS
Surface mount	CCO
DLVA	CDL

FREQUENCY MULTIPLIERS

CFM

FREQUENCY DIVIDERS

CDV

FREQUENCY COMBINERS

CCF

FREQUENCY CONVERTERS

Down Converters	CDN
Up Converters	CUP

ANTENNAS

Rectangular Gain Horn	CRA
Circular Gain Horn	CCA
Microstrip Antenna	CMA
Planar Antenna	CPA
Wide Angle Scalar Feed Horn	CWA
Scalar Feed Horn	CFH
Orthomode Transducer	COT
Horn Lens Antennas	CHA
Prime Focus Parabolic Antennas	CPF
Casse Grain Antennas	CCG
Circular Polarizer	CCP
Linear-Circular Switchable Polar.	CLP
Farraday Fixed Polarizer	CFP
Farraday Switchable Polarizer	CSP
Faraday Programmable Polarizer	CPP
Parabolic Grid Antenna	CPG
Parabolic Antenna	CPB
GPS Antenna	CGP
Patch Antenna	CAP
Omni Directional	COD

COUPLERS PRODUCTS

Directional Couplers	CDC
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COUPLERS PRODUCTS Cont'd

Cross Guide Couplers	CCC
Magic Tee	CMT
Bidirectional Couplers	CBC
Power Samplers	CPR
Hybrid Couplers	CHC
Dual Direction Couplers	CDDC

FERRITE

Differential ϕ -shift Circulators	CPC
High Power Resonance Isolators	CRI
T-Type Circulators	CTC
Double Junction Circulators	CDJ
Junction Circulators	CJC
(Include K & Ka Full-Band)	
Junction Isolators	CJI
(Include K & Ka Full-Band)	
Fullband Isolators	CFI
Fullband Circulators	CFC
Drop-in Isolators	CID
Drop-in Circulators	CCD
Full Band Ferraday Isolators	CFF
Coaxial Isolators	COI
Coaxial Circulators	COC
High Power Coaxial Circulators	COH
High power Waveguide Circulators	CWC
High Power Waveguide Isolators	CWI
Iso-adapters	CIA
Microstrip isolators	CMI
Microstrip Circulators	CCM
S.M. Isolators/Circulators	CSI/CSC

FILTERS & DIPLEXERS

Lowpass	CLF
Bandpass	CBF
Highpass	CHF
Bandstop	CSF
Image Rejection	CIF
Diplexers	CDF
Triplexers	CTF
Switch Filter Banks	CSB
Notch Filters	CNF

OSCILLATORS & NOISE SOURCES

Mech. Tuned Gunn Osc.	CMG
Varactor Tuned Gunn Osc.	CVG
Bias Tuned Gunn Osc.	CBG
Injection Lock Gunn Osc.	CIL
DRO	CDO



PLO
VCO

CPO
CVO

Flexible/Twistable Waveguide
Flexible Waveguide
Power Sampler

CFT
CFW
CPR

SWITCHES

SPST Switch
SPDT Switch
SPTT Switch
SP4T Switch
Rotary Switch
Two Position Solenoid Switch
Mechanical Switch (Electro-Mech.)
Polarization Switches
Mechanical Waveguide Switches

C1T
C2T
C3T
C4T
CRT
CTP
CSM
CZS
CWS

WAVEGUIDE PRODUCTS Cont'd

Waveguide Tuner
Waveguide Combiner
Elliptic Waveguide
Pressure Windows
Pressure InLet

CWT
CCW
CEW
CPW
CPI

PHASE SHIFTERS

Phase Shifters
Motorized Rotary Vane Phase Shifter
Ferrite Phase Shifters
Micrometer Cal. Phase Shifters
Direct Reading Phase Shifters
Digital Phase Shifters
Differential Phase shifters

CPS
CMP
CFS
CMS
CDS
CSD
CDD

TERMINATIONS

Coaxial Load
High Power Load Termination
Sliding Matched Termination
DC Block

CCL
CWL
CST
CDB

MIXERS

Balance Mixers
Harmonics Mixers
Rejection Mixers
I/Q Mixers

CMB
CHM
CRM
CQM

TRANSITION & ADAPTERS

Waveguide to Waveguide
Waveguide to Coax
Rectangular to Circular
Tapered Mode
Flange Adapter
Coxial Adapters

CWW
CWK
CRC
CTM
CWF

ATTENUATORS

Fixed Setting Attenuators
Level Set Attenuators
Micrometer Cal. Attenuators
Direct Reading Precision Attenuator
Pin Diode Attenuator
Programmable Rotary Attenuator
Voltage Controlled Attenuators
Digital Controlled Attenuators
Step Attenuators

CFA
CSA
CMC
CDA
CPD
CRV
CVA
CAD
CAT

WAVEGUIDE PRODUCTS

Waveguide Section
Circular Waveguide Section
Waveguide E Plane Bend
Waveguide H Plane Band
Waveguide Twist
Waveguide Bends 90°
Waveguide Short
Adjustable Waveguide Short
Rotary Joint
Frequency Meters
Direct Reading Freq. Meters
Hybrid Tees
E & H Plane Series Tees
Single Hybrid Ring
E/H Plane Tuners
90 degree Hybrid
Circular Waveguide Section
3dB Short Slot hybrid
Waveguide Flanges

CSS
CSSC
CEB
CHB
CTS
CWB
CSW
CAS
CRJ
CMF
CDM
CHT
CTE
CHR
CPT
CBH
CCS
CSH
CWR

DETECTORS

Finline Detectors
Balanced Phase Detector
Amplitude Detector

CFD
CBD

SUBSYSTEMS

Subsystems

CSR

BIAS TEE

LIMITER

POWER COMBINER/DIVIDER

CABLE ASSEMBLIES

VOLTAGE REGULATORS

EQUALIZER

SYNTHESIZER

PIN DIODE MODULATOR

CBT
CLM
CDP

CVR
CGE
CSY
CPM

AMPLIFIERS

BROADBAND LOW NOISE AMPLIFIERS:

0.001-110GHz (Octave and Multi-Octave) With Noise Figure As Low As 2db.

0.1-2GHz; 0.1-12GHz; 0.1-20GHz; 0.1-40GHz; 0.1-50GHz; 0.1-60GHz; 0.1-78GHz; 2-4GHz; 2-8GHz; 2-20GHz;

2-26.5GHz; 3.7-12GHz; 5-15GHz; 6-18GHz; 18-26.5GHz; 18-40GHz;

26.5-40GHz; 57-65GHz; 85-97GHz. ; 75-110Ghz.

BROADBAND MEDIUM POWER AMPLIFIERS:

0.001-110GHz (Octave and Multi-Octave) With Output Power Up To 30dBm.

0.5-2GHz; 0.5-4GHz; 0.5-6GHz; 0.5-8GHz; 0.5-10GHz; 0.5-12GHz;

0.5-14GHz; 0.5-20GHz; 2-4GHz; 2-8GHz; 2-20GHz; 2-50GHz; 3.7-12GHz;

5-15GHz; 6-18GHz; 18-26.5GHz; 18-40GHz; 26.5-40GHz; 40GHz-60GHz;

90-97GHz.; 75-110Ghz.

BROADBAND HIGH POWER AMPLIFIERS:

0.001-50GHz (Octave and Multi-Octave) With Output Power Up To 53dBm.

0.5-2GHz; 2-4GHz; 2-8GHz; 4-8GHz; 6-18GHz; 3.7-12GHz; 5-15GHz; 8-12GHz; 12-18GHz; 18-20GHz; 18-26.5GHz; 26.5-40GHz; 40-50GHz.

NARROWBAND LOW NOISE AMPLIFIERS:

0.001-110GHz With Noise Figure As Low As 0.25dB At L-Band, And 6dB At 110GHz.

NARROWBAND MEDIUM POWER AMPLIFIERS:

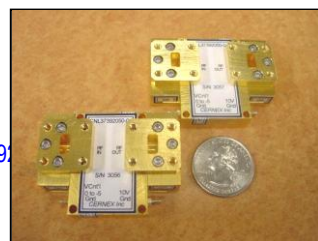
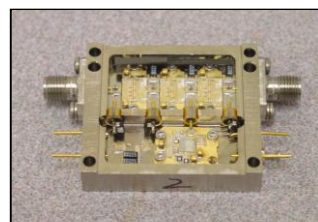
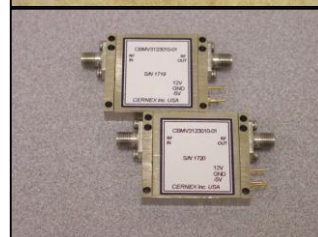
0.001-96GHz With Output Power Up To 33dBm.

NARROWBAND HIGH POWER AMPLIFIERS:

0.001-50GHz With Output Power Up To 2000W AT UHF&1000W At L & C Band.

LIMITING AMPLIFIERS:

0.001-60GHz (Octave and Multi-Octave) With Medium And High Gain.





0.5-2GHz; 0.8-2.5GHz; 4-8GHz; 6-18GHz; 8-12GHz; 8-20GHz;
18-26.5GHz; 26.5-40GHz; 40GHz-60GHz

RACK MOUNT AMPLIFIERS (19 INCHES):

0.5-2GHz (10W - 50W); 0.8-2.5GHz (20W - 100W);
1-2GHz (20W - 200W); 2-4GHz (20W - 200W); 2-6GHz (10W - 100W);
2-8GHz (10W - 200W); 4-8GHz (20W - 200W);
8-12GHz(20W - 200W); 6-18GHz (10W - 100W); 18-26.5GHz (5W, 10W &
20W); 26.5-40GHz (2W, 4W, 5W, 10W & 20W).

DESK TOP AMPLIFIERS (12 INCHES) :

LNA: 1-40GHz (4dB NF); 1-50GHz (5dB NF).

SSPA: 0.5-2GHz (5W); 0.8-2.5GHz (5W & 10W); 1-2GHz (5W & 10W);
2-4GHz (5W & 10W); 2-6GHz (5W); 2-8GHz (5W); 4-8GHz (10W);
8-12GHz (5W & 10W); 6-18GHz (2W, 4W & 5W); 18-26.5GHz
(1W & 2W); 26.5-40GHz (1W & 2W).

DESK TOP CLOCK RECOVERY AMPLIFIER

DATA RATES: 10/20Gbs With ½ Clock Output 2.5Vp-p
With Full Clock Output 2Vp-p

40/43Gbs With ½ Clock Output 2Vp-p
With Full Clock Output 1.5Vp-p

DESK TOP MULTIPLIERS (12 INCHES) :

INPUT FREQUENCY: 2.5GHz

OUTPUT FREQUENCIES: 5GHz; 10GHz; 20GHz & 40GHz.

DESK TOP PRESCALARS (12 INCHES) :

INPUT FREQUENCY: 40GHZ @ 0dBm

OUTPUT FREQUENCIES: 20GHz, 10GHz & 5GHz @ 0dBm

SATCOM WAVEGUIDE LNAs:



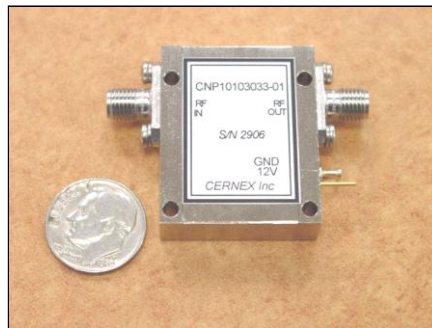
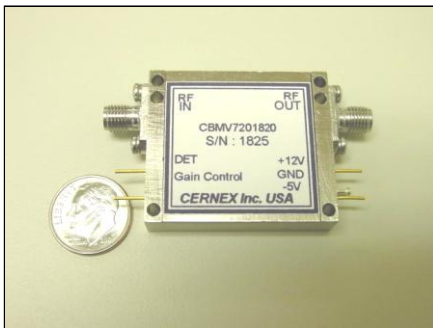
AMPLIFIERS FOR OPTICAL FIBER COMMUNICATIONS:

Broadband Modulator Driver Amplifiers (NRZ) for Optical Fiber Communications Up To 40Gb/s With Output Voltage of 3-8 Vp-p.

30KHz-10GHz; 30KHz-12GHz; 30KHz-14GHz; 50KHz-18GHz; 50KHz-20GHz; 75KHz-45GHz; 75KHz-50GHz; 75KHz-65GHz; 75KHz-78GHz.

Driver Amplifiers (RZ) for Clock Recovery and Forward Error Correction Up To 100Gb/s With Output Voltage Up To 30 Vp-p.

20Gbs & 40Gbs Clock Recovery Amplifiers



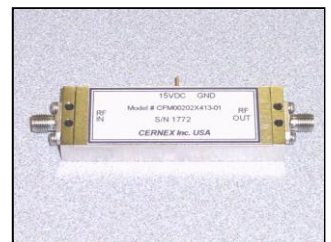
FREQUENCY MULTIPLIERS UP TO 160GHz:

PASSIVE FREQUENCY MULTIPLIERS:

With Input Frequency As Low As 0.01GHz, And Output Frequency As High As 160GHz.

ACTIVE FREQUENCY MULTIPLIERS:

With Input Frequency As Low As 0.01GHz, And Output Frequency As High As 110GHz. Multiplication Factors From 2 to 64.



FREQUENCY DIVIDERS:

With Input Frequency As High As 40GHz, And Output Frequency As Low As 0.1GHz.





MIXERS & DETECTORS UP TO 220GHz:

Harmonic Mixers, Spectrum Analyzer Mixers, Single Ended Mixers, Balance Mixers & Wide-Band Balance Mixers.



SOURCES UP TO 160GHz:

Mechanically Tuned Gunn Oscillators, Varactor-Tuned Gunn Oscillators, DROs, VCOs, PLOs, Injection Locked Oscillators & Noise Sources.



CONTROL COMPONENTS UP TO 160GHz:

Direct Reading Precision Attenuators, Programmable Rotary Vane Attenuators, Uncalibrated Variable Attenuators, Dial-Driven Calibrated Attenuators, Micrometer-Driven Calibrated Attenuators, Variable PIN Attenuators.

Frequency Meters & Direct Reading Frequency Meters.



ATTENUATORS UP TO 160GHz

Coaxial & Waveguide Fixed Power Attenuators Up To 10KW, Level Set Attenuators, Micrometer Cal. Attenuators, PIN Diode Attenuators, Voltage Controlled Attenuators, Digital Controlled Attenuators.



SWITCHES UP TO 160GHz

Mechanical Waveguide Switches, Electromechanical Waveguide Switches, PIN Switches (SP1T To SP16T, Full-band Switches).



FERRITE PRODUCTS UP TO 170GHz:

Fullband Junction Circulators And Isolators. (18-26.5GHz; 26.5-40GHz; 33-50GHz; 40-60GHz; 50-75GHz; 60-90GHz & 75-110GHz). High Power Isolators And Circulators, Coaxial And Drop-in Isolators And Circulators.



FILTERS & DIPLEXERS UP TO 160GHz:



BandPass Filters, Low Pass Filters, HighPass Filters & Notch Filters.

CERNEX, Inc.

BIAS TEES:

Waveguide & Coaxial Bias Tees Up To 65Ghz.

WAVEGUIDE & COAXIAL COUPLERS UP TO 160GHz:

Directional & Bi-directional Couplers, Precision High Directivity Couplers, Crossguide Couplers, 3dB Hybrid 90 Degree And 180 Degree Couplers.

POWER COMBINERS AND DIVIDERS UP TO 60GHz:

Waveguide & Coaxial 2 To 24 Way Combiners/Dividers.

WAVEGUIDE AND COAXIAL PHASE SHIFTERS:

Direct Reading & Variable Phase Shifters.

TERMINATIONS AND LOADS UP TO 160Ghz:

Coaxial Loads Up To 50KW, Waveguide Air & Water Cooled Loads Up To 5KW, Sliding Matched Terminations, Waveguide & Coaxial Terminations, DC Block.

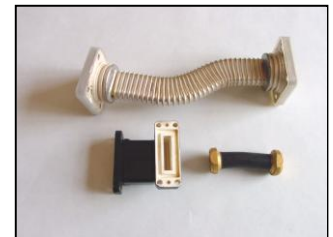
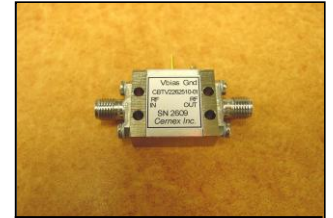
TRANSITIONS / ADAPTERS:

Low Loss Cosine & Linear Tapered Mode Transitions, Circular To Rectangular Waveguide Transitions, Waveguide To Coax Transitions, Coaxial Adapters (1mm, 1.8mm, 2.4mm, 3,5mm, SMA etc.. In Series And Between Series)

WAVEGUIDE PRODUCTS UP TO 325Ghz:

Matched Hybrid Tees, E-Plane And H-Plane Tees.
Waveguide Sections, Terminations, Sliding Matched Terminations, Twists & Bends, Shorts, Adjustable Shorts, Rotary Joints, Hybrid Tees, H and E Plane Series Tees, Single Hybrid Ring, 90 Degree Hybrid Tees, Circular Waveguide Sections, 3dB Short Slot Hybrid, Waveguide Flanges, Flexible/Twistable Waveguides, Waveguide Tuners, Elliptic Waveguide, Pressure Windows, Tunable Loads & Shorts, E/H Plane Tuners, Mechanical And Power Samplers.

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www.cernex.com



CERNEX, Inc.

DETECTORS:

Finline Detectors, Balance Phase Detectors & BroadBand Detectors.



ANTENNA PRODUCTS:

Horn Lens Antennas, Standard Gain Horn Antennas, Scalar & Wide Angle Scalar Feed Horn Antennas, Cassegrain Reflector Antennas, Prime Focus Antennas, Orthomode Transducers, Linear To Circular Fixed And Switchable Polarizers, Parabolic Grid Antennas, GPS Antennas & Flat Panel Antennas.



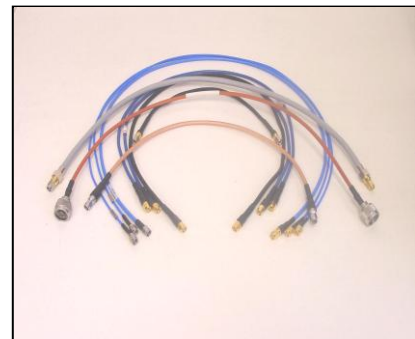
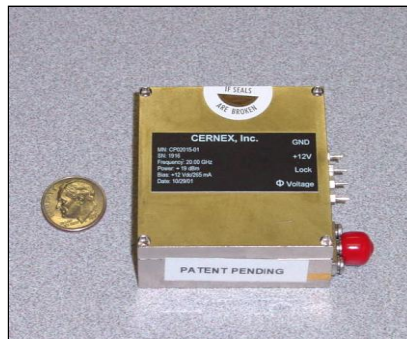
ASSEMBLIES AND SUBSYSTEMS:

Up/Down Converters, Sat-Com Up/Down Converters, Dual & Tri-Band Block Down Converters, Transmitters, Generic Transceivers & Antenna-Related Subsystems.



SYSTEMS PRODUCTS CAPABILITY:

Sensor Products, Communication Products, Remote Sensing Products, Surveillance And EW Products.



NOTES: PLEASE, CONTACT THE FACTORY FOR ALL YOUR OTHER SPECIAL REQUIREMENTS. WE ALSO HAVE PRODUCTS, WHICH ARE NOT YET MENTIONED IN THIS BROCHURE. DATASHEETS FOR EACH PRODUCT CAN BE DOWN LOADED FROM OUR WEBSITE.



Coaxial Tubular Products



DC-45GHz Var. Attenuator



DC-Block



CDMA Power Divider



Coaxial PIN Switches



Coaxial Loads



Connectors



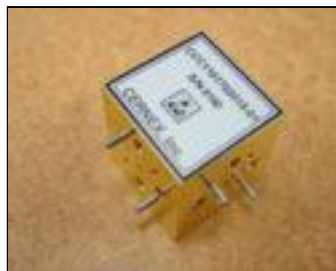
Frequency Combiner



Gain Modules



Power Supply-Rack



WR6 Crossguide Coupler



WR15 Electro-Mech Switch



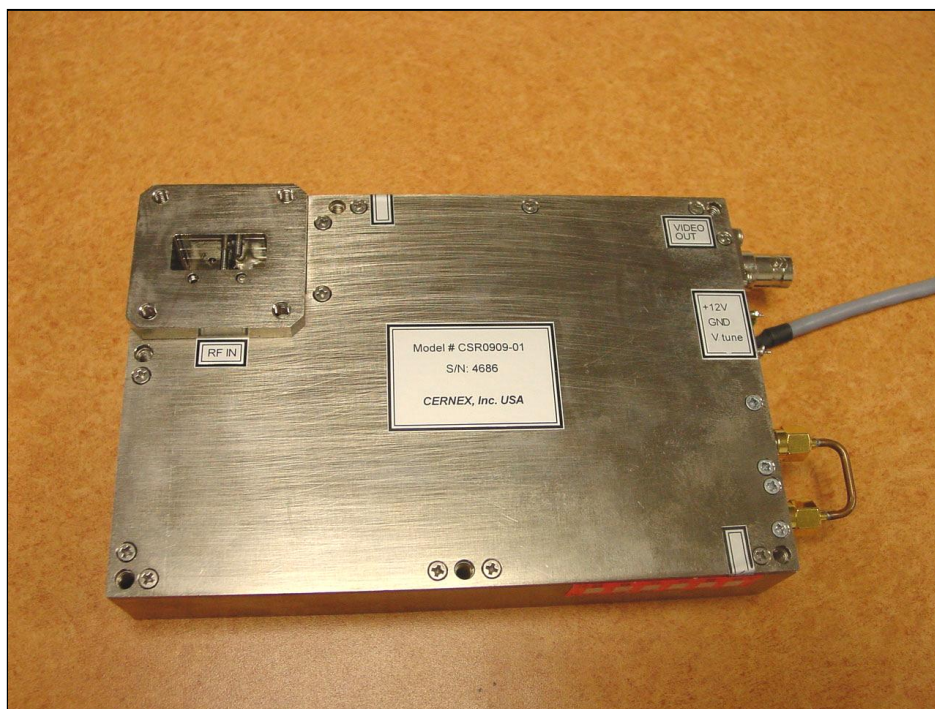
WCDMA Diplexer



Tapered Mode Transitions



Various Filter



X-band Receiver



KA-band Transceiver