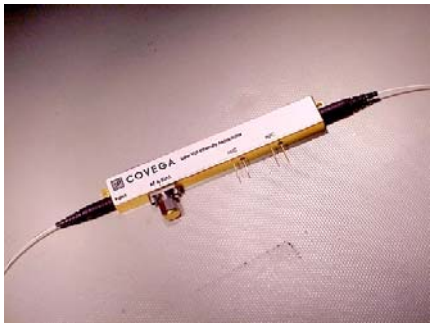
Covega Corporation
10335 Guilford Road, Jessup, MD 20794, USA
Phone: +1 877.226.8342 **Fax**: +1 240.456.7200
Email: sales@covega.com **Web**: http://www.covega.com

LN 058: Low Vπ Analog Modulator

7.1.2.SP.0058 Rev D Preliminary Model

Description

The Low Vπ Intensity Modulator was designed for high performance analog transmission in microwave optical links. Operating frequencies to 20 GHz are supported, with an industry-leading low Vpi. The Low Vπ Intensity Modulator is a single-ended drive modulator based on the Mach-Zehnder interferometric architecture, using titanium-indiffused lithium niobate substrates.



Applications

- ✓ Microwave optical links
- ✓ Antenna remoting
- ✓ High-speed test equipment

Features

- → Very Low Vpi (<3.9V at 20 GHz)
- → Excellent Performance to 20 GHz
- → Long-Term Bias Stability
- → Hermetic Packaging - High Reliability - Telcordia GR-468 Compliant
- → C & L Band Operation

Ordering Information

LN 058-20-X-X-X

Part #	Bandwidth	Output Fiber Type	Input Connector	Output Connector	
058	20 = 20 GHz	S = SMF*	S = SC/PC*	S = SC/PC*	
		P = PMF	B = Bare Fiber	B = Bare Fiber	
			F = FC/uPC	F = FC/uPC	
			L = LC/PC	L = LC/PC	
			A = FC/aPC	A = FC/aPC	
			M = Mu	M = Mu	

* Default options unless otherwise specified

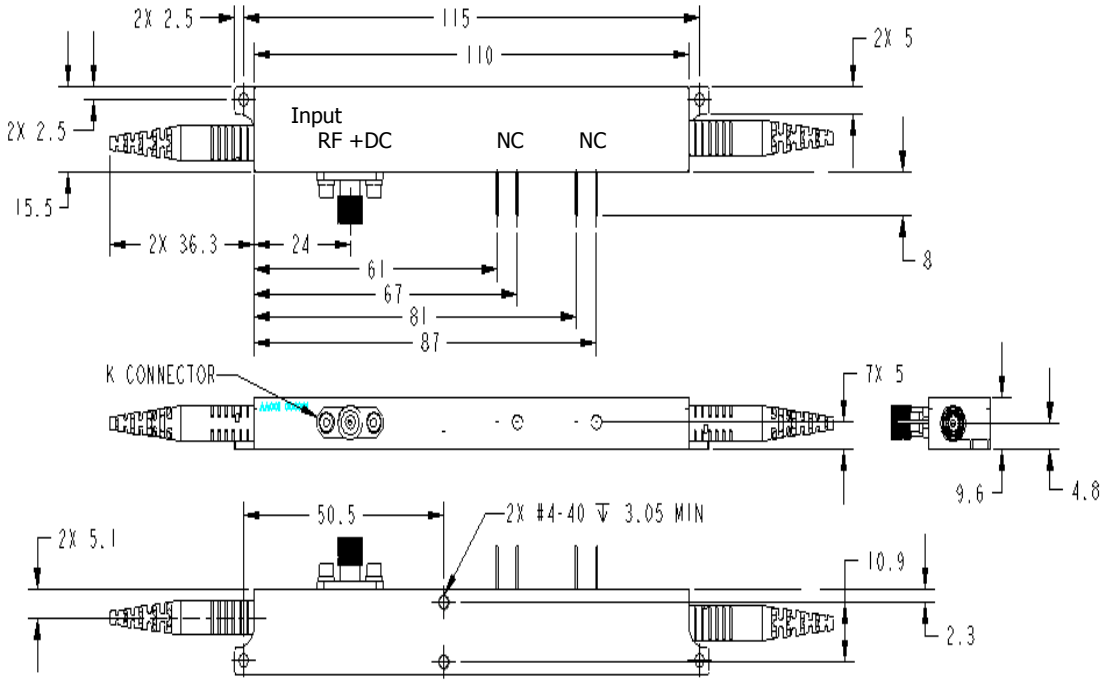
Covega Corporation
10335 Guilford Road, Jessup, MD 20794, USA
Phone: +1 877.226.8342 **Fax**: +1 240.456.7200
Email: sales@covega.com **Web**: http://www.covega.com

LN 058

Specifications

Parameter		Min	Typ	Max	
Environmental:					
Operating Case Temperature		0		70	C
Storage Temperature		-40		85	C
Optical:					
Operating Wavelength		1525		1605	nm
Optical Insertion Loss (Connectorized)				5.5	dB
Insertion Loss Variation (EOL)		-0.5		0.5	dB
Optical Return Loss		40			dB
Optical On/Off Extinction Ratio (@ DC)		20			dB
Electrical:					
S11 (dc to 20 GHz)			-12	-10	dB
V_π @ 20 GHz			3.5	3.9	V
V_π @ DC			1.5	2	V
Mechanical					
RF Connection		SMA Connector			
Bias Connection		Lead Pins			
SPECIFICATIONS SUBJECTED TO CHANGE WITHOUT NOTICE					

Packaging



Dimensions in mm unless otherwise specified; Tolerances are ± 0.05 (decimals) ± 1 (angles)
Device used same housing as Mach10 004, with pin re-assignments