

Product Overview

These modulators are made of Quartz and due to their hard V-coating with low reflectivity, they have got a high damage threshold. In addition, due to the small aperture, fast rise time can be achieved.

They are mainly intended for intensity modulation in high power applications but can be used as frequency shifter as well: +/- 80 MHz.



Features

- 1.06 μm design.
- Linear polarisation.
- Air cooled.
- High damaged threshold.

	Units	Min	Nom	Max
Material-Acoustic mode-Velocity		Crystal quartz [L] – 5740 m/s		
Optical Wavelength range (AR coated) (λ)	nm	1030	1064	1080
Carrier Frequency / Frequency shift	MHz	+/-80		
Transmission	%	99		
Input / Output Polarization with ref to baseplate		Linear vertical		
Active Aperture	mm ²	2 x 2		
Beam diameter (1/e ²)(φ)	mm	0.7		1.6
Rise/fall time (T _r)	ns	81		184
Analog Amplitude Modulation Bandwidth (-3dB) (F _{-3dB})	MHz			6
Separation Angle (0-1)	mrd	14.2	14.8	15
Static Extinction Ratio	dB	30		
* Diffraction Efficiency (η)	%	80	85	
Optical power density	MW/cm ²	500		
Input impedance	Ω		50	
V.S.W.R.			< 1.2:1	
RF Power (P)	W		15	
Connector		SMA female		
Size	mm ³	33 x 36.5 x 25.8		
Weight	g		35	
Packaging		IN PRO 343		
Operating Temperature (non condensing)	°C	+10	+25	+40
Storage Temperature (non condensing)	°C	-40		+65
RoHS Compliance		Yes		

$$T_r = 0.66 \frac{\phi}{V} * F_{-3dB} = \frac{0.48}{T_r} * \Delta\theta = \frac{\lambda F}{V} * \frac{P_1}{P_2} = \frac{\lambda_1}{\lambda_2}$$

2 Holes $\varnothing 3,6$
Through

2 Threaded Holes M3
Depth 5mm Maxi

Optical Axis

Variable length of cable and
connector in function of product reference

22,5 Nominal (tolerance "optical axis" 20.5 to 22.5)

Optical Axis

Threaded Hole M3
Depth 8,5mm

Product reference + "-Cxx" + Connector

*"-Cxx" = length of cable in cm
ex : "-C35" = Cable 35cm

*Rf connector:

- "Sa" = SMA Bulkhead Crimp
- "Sap" = SMA Straight Plug
- "Sac" = SMA Angle Plug
- "Sc" = SMC
- "Scc" = SMC Angle Plug
- "Bc" = BNC

ex: QCQ...-C6Sa = QCQ with 6cm cable and SMA connector.

The cap can be removed

B	23/04/15	G.M	Modif axe optique vue A4.
A	07/04/15	G.M	Plan initial / Initial Drawing
Indice Index	Date	Auteur Author	Modifications

Conception Design	G.M	PLAN D'INTERFACE / OUTLINE DRAWING
Vérification Checking	FLF	
Tolérance Tolerance	ISO 2768mK	Référence / Reference
Echelle Scale	1:1	IN-PRO-343



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