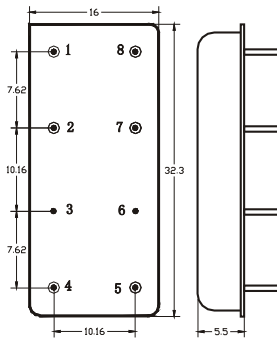


Features

- Low conversion loss
- High 3×I/Q, 5×I/Q harmonic suppression
- 50 Ω impedance, Low VSWR
- Hermetic DIP-22D package
- Operating temperature range: -55°C ~ +85°C

Specifications (measured in a 50 Ω system TA=25°C Plo=+10dBm)

Parameter	Symbol	Unit	Guaranteed	Typical
LO/RF frequency	$f_L \sim f_H$	MHz	$f_0 \pm 5\%$	$f_0 \pm 10\%$
Conversion loss	C.L	dB	10(Max)	7
3×I/Q, 5×I/Q harmonic suppression	----	dBc	40 (Min)	50
Phase imbalance	ΔP	deg	$\pm 2^\circ$ (Max)	$\pm 1.0^\circ$
Amplitude imbalance	ΔM	dB	0.5(Max)	0.3
I/Q Bandwidth	VBW	MHz	5% of f_0	10% of f_0
RF input power at 1dB Comp Point	P ₋₁	dBm	+3(Min)	+4
Dynamic range	----	dB	60(Min)	65
VSWR	VSWR	----	1.5:1(Max)	1.3:1



DIP-22D Bottom View

Application Notes

1. The package should be placed as close to board as possible for better RF grounding.
2. In LO frequency < RF frequency. Q = 90°

Pin connection:

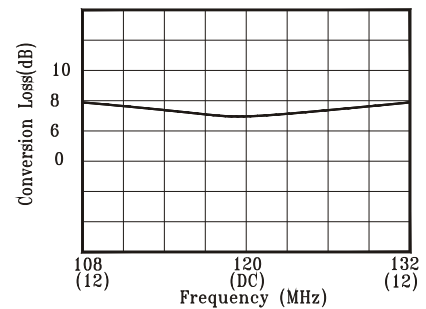
Pin1: RF input Pin5: Lo input
Pin2&7: I,Q outputs
Others Ground

IQDN Ordering Information

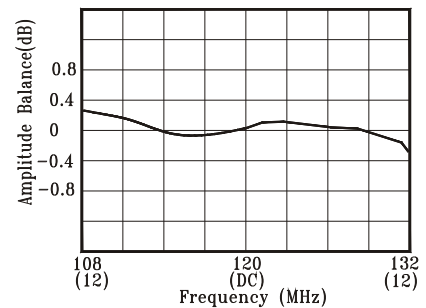
P/N	LO frequency	I/Q Bandwidth
● IQDN-10	10MHz	3MHz
● IQDN-30	30MHz	5MHz
● IQDN-36	36MHz	5MHz
● IQDN-60	60MHz	6MHz
● IQDN-70	70MHz	6MHz
● IQDN-120	120MHz	12MHz
● IQDN-140	140MHz	16MHz
● IQDN-240	240MHz	20MHz
● IQDN-868	868MHz	20MHz
● IQDN-xxx	5~1000MHz	5% of f_0

Typical Performance

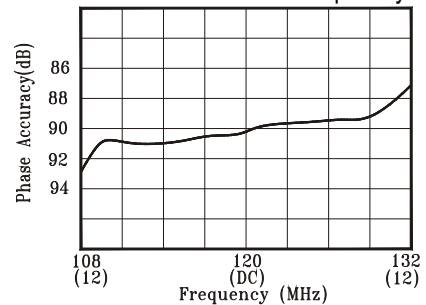
Conversion loss vs. Frequency



Amplitude balance vs. Frequency



Phase balance vs. Frequency



Notes:

1. Specified LO frequency within 5~2000MHz available, up to octave operating bandwidth
2. Optional LO level +7dBm, +10dBm, +17dBm available