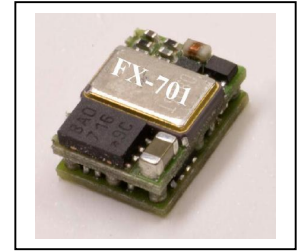


Typical Applications

Base Stations
 Test + Measurement

Features

Surface Mount Package
 Reflow Process Compatible
 Low Phase Noise
 Build in PLL-Circuit



Output Frequency range

10 MHz – 185 MHz

Standard frequencies

10; 25; 52; 56; 61.44; 77.76; 104 MHz
 122.88; 153.6; 155.52; 160; 179,2; 184,32 MHz

Reference Frequency

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code ⁵
Input frequency	2		65	MHz	± 10 ppm	
Parameter	Min	Typ	Max.	Units	Condition	
Signal		HCMOS				IFH
Reference Level	0.5		4	V _{pp}	HCMOS / similar sinewave	
Reference Input Impedance	2			kΩ		

Output Frequency

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code ⁵
output frequency	10		185	MHz		
Signal	HCMOS					RFH
Load		15.0		pF	@ 15 pF 10 to 90 % @ Vs/2	
Rise and Fall time			5	ns		
Duty cycle	40		60	%		

Supply voltage (Vs)

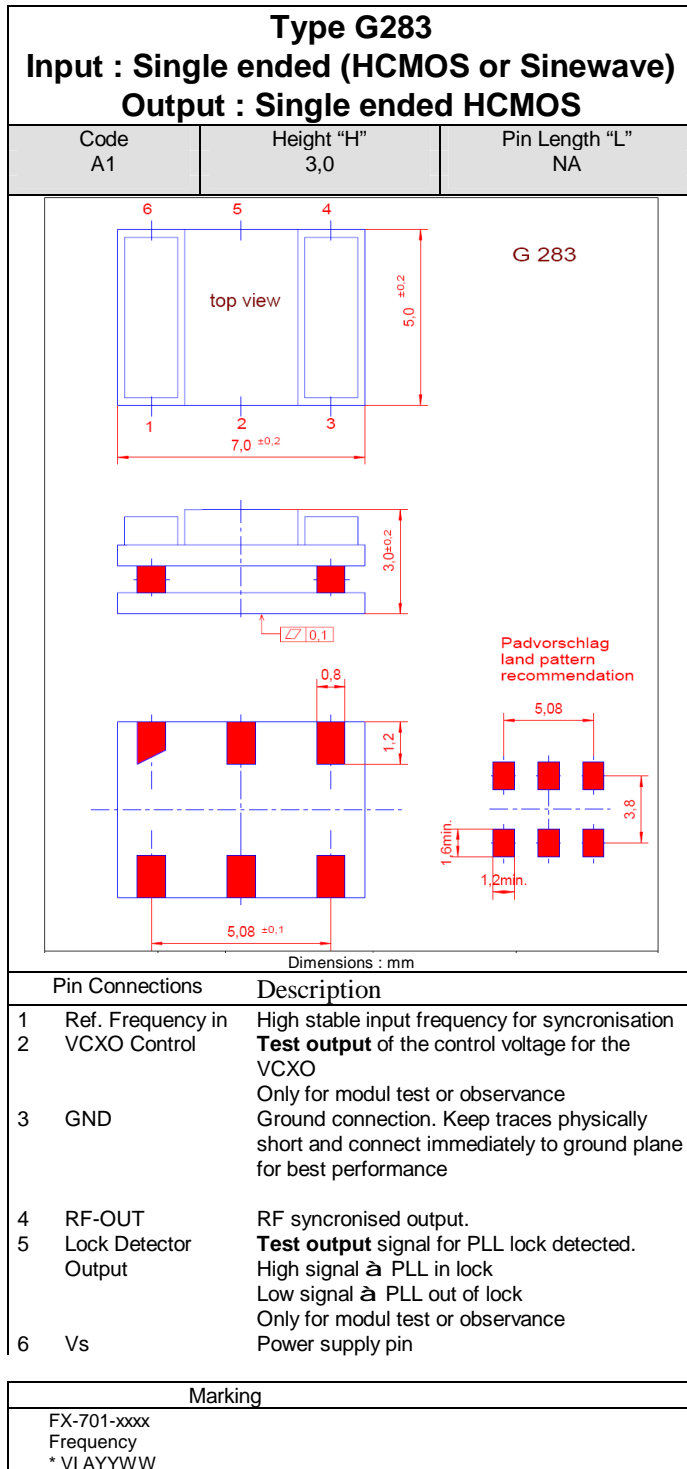
Parameter	Min	Typ	Max.	Units	Condition	Ordering Code ⁵
Supply voltage [Standard]	3.135	3.3	3.465	VDC		SV033
Current consumption			50	mA	steady state @ +25°C & 3.3VDC	

Additional parameters

Parameter	Min	Typ	Max.	Units	Condition	
Phase Noise ³		-70		dBc/Hz	10 Hz	@ 122,88 MHz
		-103		dBc/Hz	100 Hz	HCMOS
		-132		dBc/Hz	1 kHz	
		-147		dBc/Hz	10 kHz	
		-155		dBc/Hz	100 kHz	
Jitter		-156		dBc/Hz	1 MHz	
		0.2		ps RMS	@ 12kHz .. 20MHz	

Additional parameters

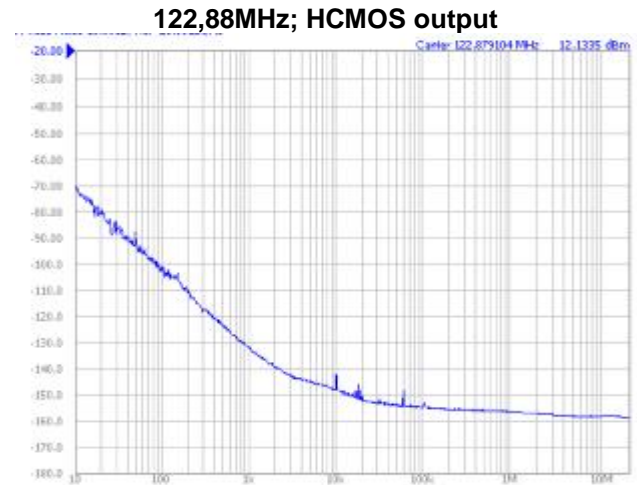
Parameter	Min	Typ	Max.	Units	Condition
Weight			1	g	
Processing & Packing	Handling & processing note				
Operating temperature range	-20		+70	°C	
Operable temperature range	-30		+85	°C	
Storage temperature range	-55		+125	°C	



Absolute Maximum Ratings

Parameter	Min	Typ	Max.	Units	Condition
Supply voltage (Vs)			6.0	V	

Typical Phase Noise and Jitter



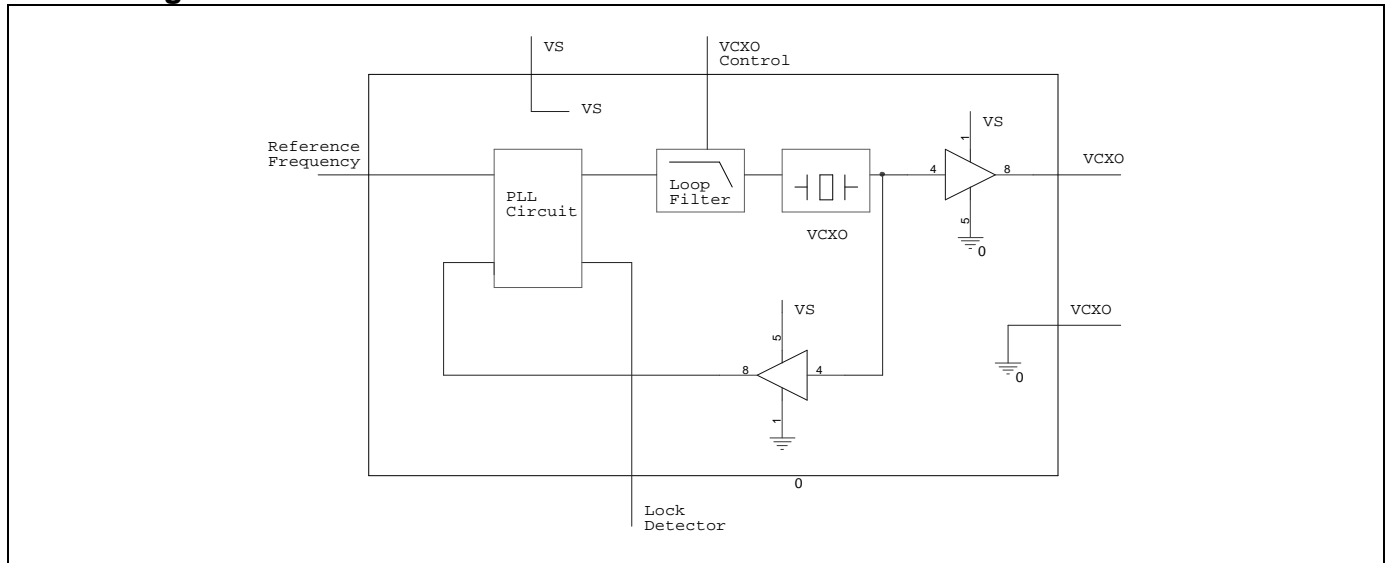
Frequency range [Hz]

12kHz to 20MHz

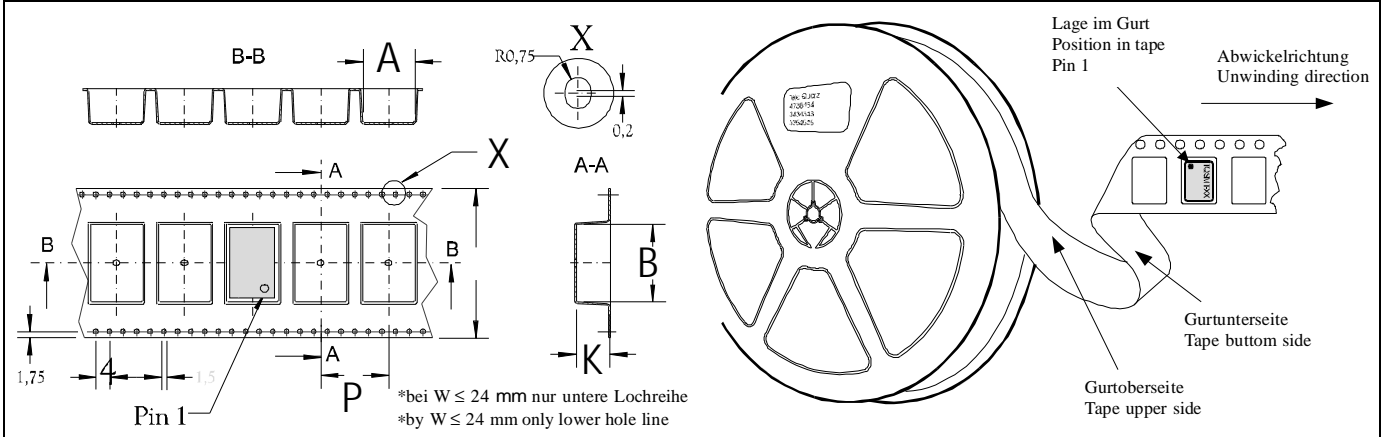
Jitter [ps rms]

2ps

Block Diagramm



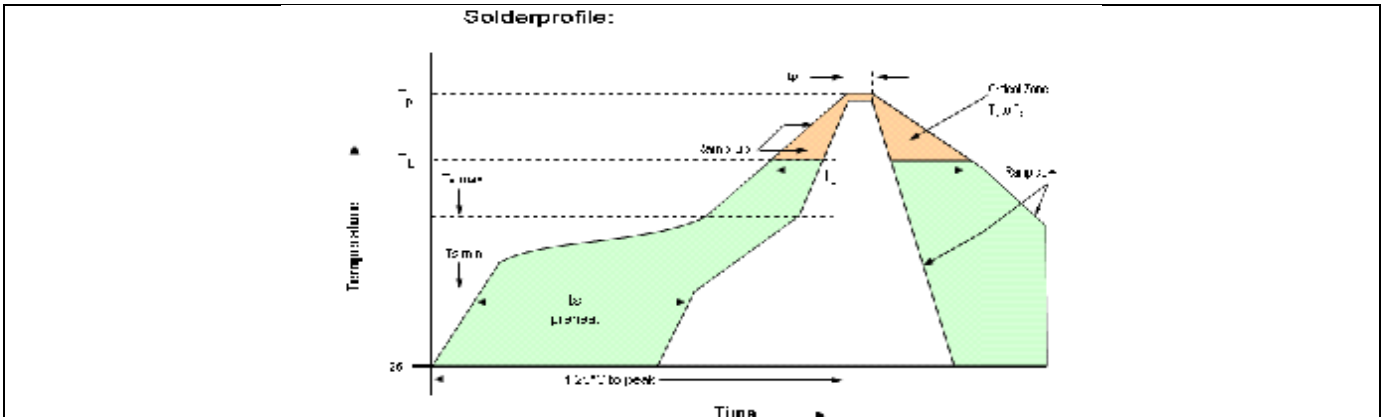
Standard Shipping Method



Production tolerance complying DIN IEC 286-3

Enclosure Type	Tape width W [mm]	Quantity per meter	Quantity per reel	Dimension P
G283	tbd	tbd	1000	tbd

Recommended Reflow Profile



Profile Feature	Pb-Free Assembly /Sn-Pb Assembly	Profile Feature	Pb-Free Assembly /Sn-Pb Assembly
Average ramp-up rate (TL to Tp)	3°C/second max.	Time 25°C to Peak Temperature	8 minutes max.
Preheat -Temperature Min Ts _{min} -Temperature Min Ts _{max} -Time (min to max) (ts)	150°C 200°C 60-180 seconds	Time maintained above - Temperature (TL) - Time (tl)	217°C 60-150 seconds
TS _{max} to TL - Ramp-up Rate	3°C/second max.		
Time maintained above - Temperature (TL) - Time (tl)	217°C 60-150 seconds	Time within 5°C of actual Peak Temperature (tp)	20-40 seconds
Peak Temperature (Tp)	max 260°C	Ramp-down Rate	6°C/second max.

Note: All temperatures refer to topside of the package, measured on the package body surface.
SMD oscillators must be on the top side of the PCB during the reflow process.

How to Order this Product:

Model	Input Frequency	Output Frequency	Supply Voltage Code	RF Output Code	Package Code		
FX-701			SV033	RFH	A1		

Supply:

SV033: 3.3V

Signal:

RFH: HCMOS