



Scale 1:1

## Features

- ▶ HCMOS / TTL compatible output
- ▶ Frequencies up to 45.0MHz
- ▶ Excellent frequency stability
- ▶ Wide temperature range
- ▶ Low cost for volume production

## Standard Frequencies

Frequencies in MHz			
9.60000	13.00000	16.00000	20.00000
10.00000	14.40000	16.38400	40.00000
12.80000	15.36000	19.44000	44.73600

Other frequencies available. Please consult our sales office.

## Frequency Stability

The table shows option codes for the available combinations of frequency stability (in ppm) and temperature range.

	±5.0	±3.0	±2.5	±2.0	±1.5	±1.0
-40 to +85°C	LI	-	-	-	-	-
-30 to +75°C	LS	KS	JS	-	-	-
-20 to +70°C	LN	KN	JN	-	-	-
-10 to +60°C	LC	KC	JC	HC	GC	-
0 to +50°C	LR	KR	JR	HR	GR	FR

## Specifications

**GTXO-538T: Internal trimmer**

**GTXO-538V: Voltage adjustment + internal trimmer**

Parameters	Variant		Option Codes
	T	V	
<b>Package style:</b> GTXO-538T GTXO-538V	■	■	
<b>Frequency range:</b> 1.20 ~ 45.0MHz	■	■	
<b>Frequency tolerance:</b> ±1.0ppm max (<30.0MHz) ±2.0ppm max (≥30.0MHz)	■	■	
<b>Frequency stability:</b> ±5.0ppm ±3.0ppm ±2.5ppm ±2.0ppm ±1.5ppm ±1.0ppm	□ □ ■ □ □ □	□ □ ■ □ □ □	L K J H G F
<b>Temperature range:</b> 0 to +50°C -10 to +60°C -20 to +70°C -30 to +75°C -40 to +85°C	□ □ □ ■ □	□ □ □ ■ □	R C N S I
<b>Storage temperature range:</b> -40 to +85°C	■	■	
<b>Frequency vs supply voltage:</b> ±0.5ppm ( $V_{DD} \pm 5\%$ )	■	■	
<b>Ageing:</b> ±1.0ppm max first year	■	■	
<b>Supply voltage (<math>V_{DD}</math>):</b> +3.0V (±5%)	■	■	
<b>Supply current:</b> 15mA max (<20.0MHz) 25mA max (20.0 ~ 35.0MHz) 30mA max (≥35.0MHz)	■ ■ ■	■ ■ ■	
<b>Driving ability:</b> 15pF HCMOS / 2 TTL	■	■	
<b>Logic levels:</b> '0' level = 0.4V max '1' level = 90% $V_{DD}$ min	■ ■	■ ■	
<b>Waveform symmetry @ 50%<math>V_{DD}</math>:</b> 40:60 max	■	■	
<b>Frequency adjustment:</b> ±3ppm min by internal trimmer ±10 ~ ±15ppm, +1.65 ±1.5V	■	■ ■	
<b>Phase noise (@ 1.0kHz):</b> -135dBc/Hz max (<12.0MHz) -130dBc/Hz max (12.0 ~ 20.0MHz) -125dBc/Hz max (≥20.0MHz)	■ ■ ■	■ ■ ■	

■ Standard. □ Optional - Please specify required code(s) when ordering

## Ordering Information

Product name + variant + option codes + frequency

eg: **GTXO-538V/JS 10.0MHz** ±2.5ppm -30+75°C (standard)

**GTXO-538V/HC 10.0MHz** ±2.0ppm -10+60°C

Option code X (eg GTXO-538V/X) denotes a custom spec.