



Specifications

GSX-455: Electrical connection end to end
GSX-456: Electrical connection across one end

Parameters	Product		Option Codes
	455	456	
Package: GSX-455 GSX-456	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Frequency: 32.768kHz 24.0 ~ 350kHz 351 ~ 615kHz	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	specify specify
Calibration tolerance: ±20ppm ±50ppm ±100ppm	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	specify specify
Temperature stability: -53ppm (-10 to +60°C) -130ppm (-30 to +80°C)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Operating temperature range: -10 to +60°C Other	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	specify
Operable temperature range: -40 to +85°C	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Storage temperature range: -55 to +125°C	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Turnover temperature (T₀): +25°C ±5°C (32.768kHz) +25°C ±8°C (24.0 ~ 350kHz) +25°C ±15°C (351 ~ 615kHz)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Frequency / temp coefficient: -0.035 ±0.008ppm/°C ² typ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Circuit condition: 12.5pF 6.0 ~ 12.5pF	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	specify
Static capacitance (C₀): 1.0pF (32.768kHz) 0.95pF (24.0 ~ 350kHz) 0.90pF (351 ~ 615kHz)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Motional capacitance (C₁): 3.0fF typ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Equivalent series resistance (max): 50kΩ (32.768kHz) 50kΩ (24.0 ~ 350kHz) 20kΩ (351 ~ 615kHz)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Ageing: ±5ppm max first year	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Drive level: 1.0μW typ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Shock resistance: ±5ppm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Soldering conditions: 240°C, 10sec max	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Features

- ▶ **Equivalents to Epson MC-405 & MC-406**
- ▶ **Plastic moulded surface mount package**
- ▶ **Miniature size for high density applications**
- ▶ **Supplied on tape and reel**

Standard Frequencies

Frequencies in kHz			
24.000	40.000	77.500	150.000
26.667	65.536	96.000	153.600
31.200	75.000	99.660	200.000
32.000	76.800	100.000	307.200
32.768	77.025	106.000	614.400
38.000	77.040	130.000	
38.400	77.056	131.072	

Ordering Information

Product name + frequency + specification (if non-standard)
 eg: **GSX-455 38.40kHz**
GSX-456 76.80kHz ±50ppm
 Option code X (eg GSX-455/X) denotes a custom specification.
 Available on T&R - 2k pcs per reel.