

## I<sup>2</sup>C Programmable Any-Frequency CMOS Clock Generator

### FEATURES

- Generates up to 3 non-integer-related frequencies from 2.5KHz to 250MHz
- I<sup>2</sup>C user definable configuration
- Exact frequency synthesis at each output (0 ppm error)
- Low output period jitter: <70pS (typ.)
- Operates from a low-cost, fixed frequency crystal: 25 or 27MHz
- Single-ended clock input accepts 2.8 to 40MHz
- Supports static phase offset
- Programmable rise/fall time control
- Glitch-less frequency changes
- Separate voltage supply pins provide level translation:
  - Core VDD: 2.5 or 3.3V
  - Output VDDO: 1.8, 2.5 or 3.3V
- Excellent PSRR eliminates external power supply filtering
- Very low power consumption
- Adjustable output delay
- Package type: MSOP10 or QFN12
- PCIE Gen 1 compatible
- Supports HCSL compatible swing

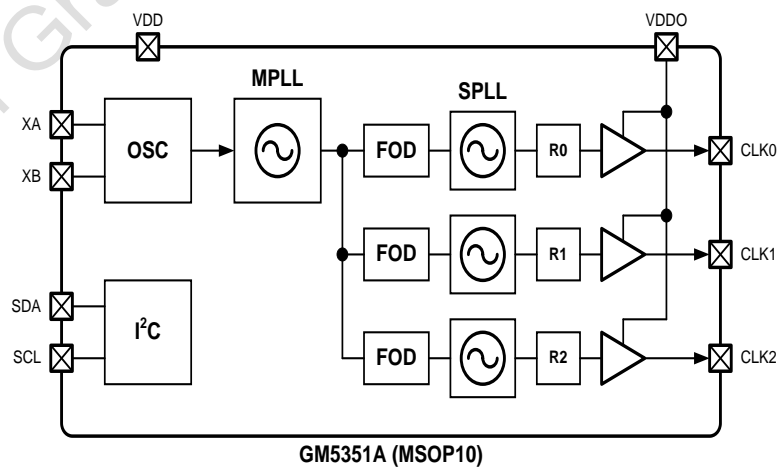
### APPLICATIONS

- HDTV, DVD/Blue-ray, Set-top box
- Audio/video equipment, gaming
- Printers, scanners, projectors
- Handheld Instrumentation
- Residential gateways
- Networking/Communication
- Servers, Storage
- XO Replacement

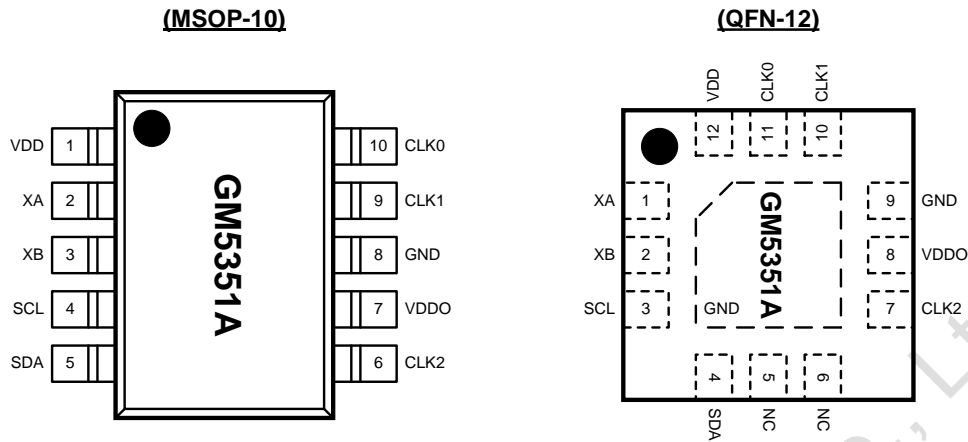
### GENERAL DESCRIPTION

The GM5351A is an I<sup>2</sup>C configurable clock generator that is ideally suited for replacing crystals, crystal oscillators, phase-locked loops (PLLs), and fanout buffers in cost-sensitive applications. The GM5351A can generate any frequency up to 250MHz on each of its outputs with 0ppm error. The GM5351A generates up to 3 free-running clocks using an internal oscillator for replacing crystals and crystal oscillators.

### FUNCTIONAL BLOCK DIAGRAM



## PIN DIAGRAM



PIN DIAGRAM (TOP VIEW)

## PIN DESCRIPTION

Pin No.		Pin Name	Pin Type	Function
MSOP10	QFN12			
1	12	VDD	Power	Core voltage power supply pin.
2	1	XA	Input	Input pin for external crystal.
3	2	XB	Input	Input pin for external crystal.
4	3	SCL	Input	Serial clock input for the I2C bus. This pin must be pulled-up using a pull-up resistor of at least 1KΩ.
5	4	SDA	Input/Output	Serial data input for the I2C bus. This pin must be pulled-up using a pull-up resistor of at least 1KΩ.
6	7	CLK2	Output	Output clock 2.
7	8	VDDO	Power	Output voltage power supply pin for CLK0, CLK1 and CLK2.
8	9	GND	Ground	Ground.
9	10	CLK1	Output	Output clock 1.
10	11	CLK0	Output	Output clock 0.
	5,6	NC	-	Not Connected.
	0	EPAD	Ground	Ground.