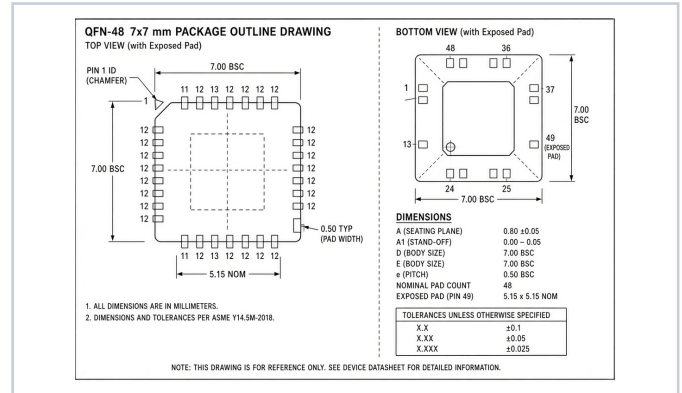
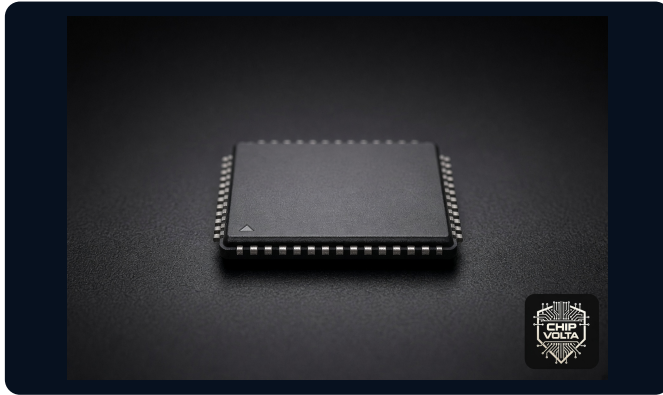


CV32-IO

Embedded Control MCU · 32-bit MCUs

Package: QFN-48 7 mm × 7 mm, 0.50 mm pitch



Description

General-purpose 32-bit MCU for I/O bricks and operator panels. Rich timer set and a calibrated RC oscillator to reduce crystal count on cost-sensitive boards.

Features

- 80 MHz 32-bit core, 128 KB flash
- 37 GPIO
- Calibrated internal RC oscillator
- UART, SPI, I2C, 16-bit timers
- –40 °C to +105 °C

Typical applications

- I/O modules
- HMI boards
- Sensor hubs

Absolute maximum ratings

Parameter	Value	Unit
VDD	–0.3 to +4.0	V
I/O	–0.3 to VDD+0.3	V
Junction temperature	–40 to +125	°C

Stresses beyond these limits may cause permanent damage. These are stress ratings only.



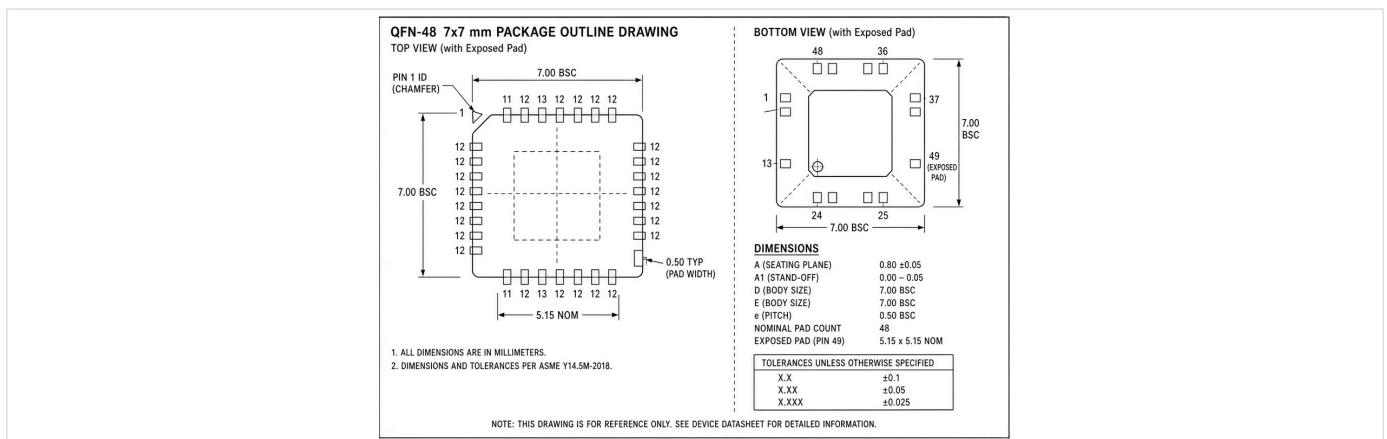
Electrical characteristics (T_j = 25 °C unless noted)

Parameter	Min	Typ	Max	Unit
VDD	2.0	3.3	3.6	V
fCPU	—	—	80	MHz
HSI accuracy	—	±1	—	%
GPIO count	—	37	—	pins

Pin assignment (simplified)

Pin	Name	Function
1	VDD	Supply
2	VSS	Ground
3–40	GPIO	Multiplexed peripherals
48	NRST	Reset
PAD	VSS	Thermal pad, ground

Package outline / mechanical sketch



Ordering and document control

This public brief supports schematic evaluation. The controlled datasheet (full electrical tables, SOA graphs, reliability summary, recommended land pattern and PPAP package) is released through Chip Volta applications engineering after an RFQ. Request it on the Contact / RFQ page quoting CV32-IO. Samples follow the same path. Shorter lead-time builds use the released test program.

Quality: Chip Volta quality management system is certified by Bureau Veritas. Devices are specified to meet applicable industry standards. Values in this brief are typical catalog figures and may be revised without notice until the controlled revision is frozen for a customer program.