FEATURES

- Dual output 4+1 and 3+2 phase PWM Controllers
- Easiest layout and fewest pins in the industry
- Fully supports AMD® SVI1 & SVI2 with dual OCP and Intel® VR12 & VR12.5
- ***Complies with VR12.5 Rev 1.3 requirement for SVID register 15h to have <200 µSec filter***
- Overclocking & Gaming Mode
- Switching frequency from 200kHz to 2MHz per phase
- IR Efficiency Shaping Features including Dynamic Phase Control and Automatic Power State Switching
- IR Adaptive Transient Algorithm (ATA) on both loops minimizes output bulk capacitors and system cost
- Auto-Phase Detection with auto-compensation
- Per-Loop Fault Protection: OVP, UVP, OCP, OTP
- I2C/SMBus/PMBus system interface for telemetryof Temperature, Voltage, Current & Power for both loops
- Multiple Time Programming (MTP) with integrated charge pump for easy custom configuration
- Compatible with IR ATL and 3.3V tri-state Drivers
- +3.3V supply voltage; -40°C to 85°C ambient operation
- Pb-Free, Halogen Free, RoHS, 5x5mm, 40-pin, 0.4mm pitch QFN

DESCRIPTION

The IR3564B/70B is a dual loop digital multi-phase buck controller designed for CPU voltage regulation and is fully compliant with AMD® SVI1 & SVI2 Rev 1.06 and Intel® VR12 Rev 1.5 PWM specification and VR12.5 Rev 1.3 PWM specification.

The IR3564B/70B includes IR's Efficiency Shaping Technology to deliver exceptional efficiency at minimum cost across the entire load range. IR's Dynamic Phase Control adds/drops active phases based upon load current and can be configured to enter 1-phase operation and diode emulation mode automatically or by command.

IR's unique Adaptive Transient Algorithm (ATA), based on proprietary non-linear digital PWM algorithms, minimizes output bulk capacitors and Multiple Time Programmable (MTP) storage saves pins and enables a small package size. Device configuration and fault parameters are easily defined using the IR Digital Power Design Center (DPDC) GUI and stored in on-chip MTP.

The IR3564B/70B provides extensive OVP, UVP, OCP and OTP fault protection and includes thermistor based temperature sensing with VRHOT signal.

The IR3564B/70B includes numerous features like register diagnostics for fast design cycles and platform differentiation, simplifying VRD design and enabling fastest time-to-market (TTM) with "set-and-forget" methodology.

APPLICATIONS

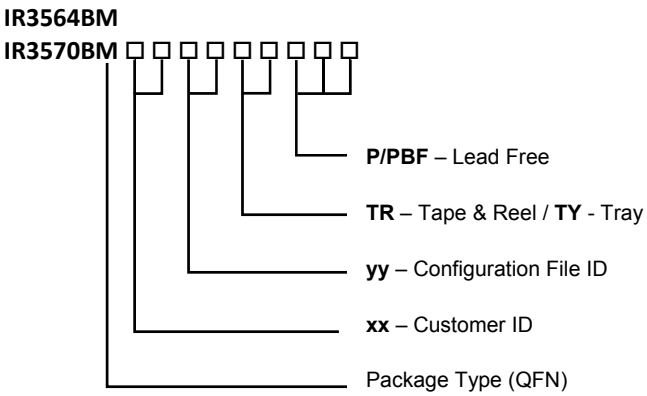
- AMD® SVI1 & SVI2, Intel® VR12 & VR12.5 based systems
- Desktop & Notebook CPU VRs
- GPU & Memory VRs

ORDERING INFORMATION

Base Part Number	Package Type	Standard Pack		Orderable Part Number
		Form	Quantity	
IR3564B IR3570B	QFN 5 mm x 5 mm	Tape and Reel	3000	IR3564BMxxyyTRP[1] R3570BMxxyyTRP[1]
IR3564B IR3570B	QFN 5 mm x 5 mm	Tape and Reel	3000	IR3564BMTRPBF IR3570BMTRPBF
IR3564B IR3570B	QFN 5 mm x 5 mm	Tray	4900	IR3564BMTYPBF IR3570BMTYPBF

1. Customer Specific Configuration File, where xx = Customer ID and yy = Configuration File (Codes assigned by IR Marketing).

ORDERING INFORMATION



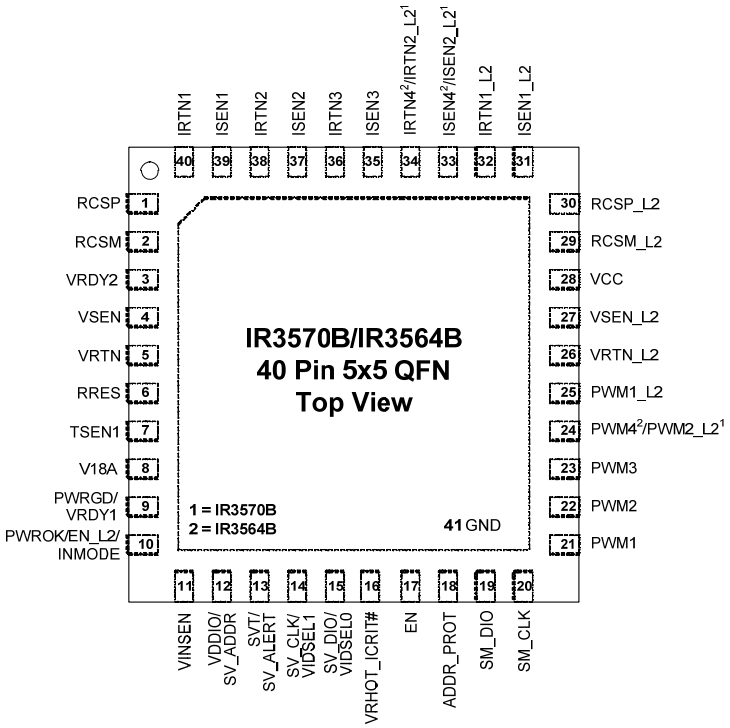


Figure 1: IR3564B/70B Pin Diagram Enlarged

MARKING INFORMATION

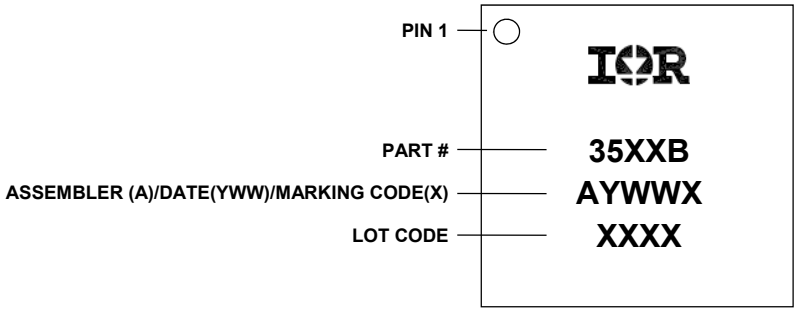


Figure 60: Package Marking

PACKAGE INFORMATION

QFN 5x5mm, 40-pin

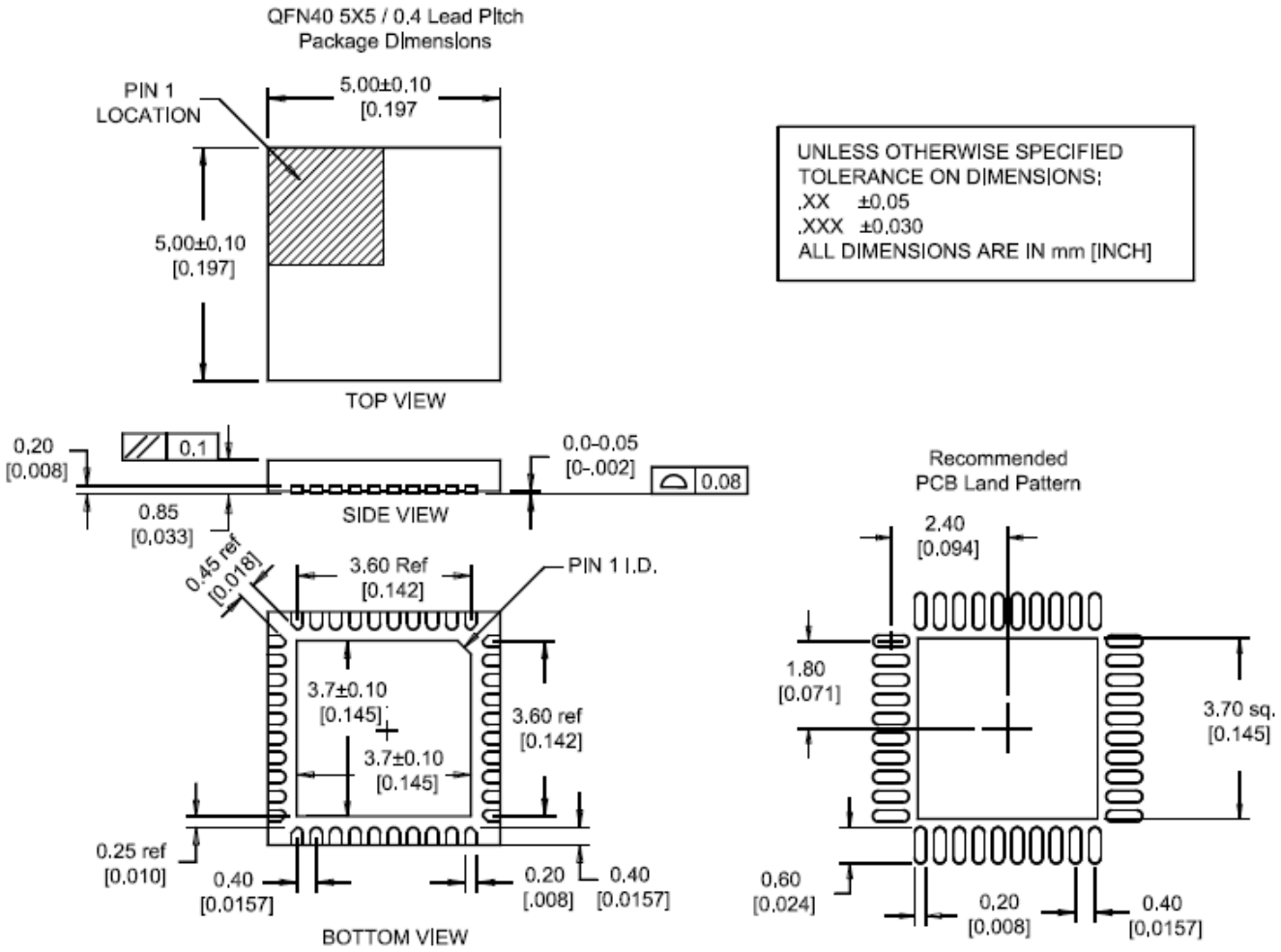


Figure 61: Package Dimensions

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Switching Controllers ***category:***

Click to view products by Infineon ***manufacturer:***

Other Similar products are found below :

AZ7500EP-E1 NCP1218AD65R2G NCP1234AD100R2G NCP1244BD065R2G NCP1336ADR2G NCP6153MNTWG NCP81205MNTXG SJE6600 SMBV1061LT1G SG3845DM NCP4204MNTXG NCP6132AMNR2G NCP81102MNTXG NCP81203MNTXG NCP81206MNTXG NX2155HCUPTR UBA2051C MAX8778ETJ+ NTBV30N20T4G NCP1240AD065R2G NCP1240FD065R2G NCP1361BABAYSNT1G NTC6600NF TC105333ECTTR NCP1230P100G NCP1612BDR2G NX2124CSTR SG2845M NCP81101MNTXG IFX81481ELV NCP81174NMNTXG NCP4308DMTTWG NCP4308DMNTWG NCP4308AMTTWG NCP1251FSN65T1G NCP1246BLD065R2G NTE7154 NTE7242 LTC7852IUFD-1#PBF LTC7852EUFD-1#PBF MB39A136PFT-G-BND-ERE1 NCP1256BSN100T1G LV5768V-A-TLM-E NCP1365BABCYDR2G NCP1365AABCYDR2G MCP1633T-E/MG NCV1397ADR2G AZ494AP-E1 UTC3843D XDPL8219XUMA1