



# NCP6131: IMVP7 1-, 2-, 3-Phase CPU Controller + 1-Phase GPU Controller



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NCP6151S/NCP6151SA/NCP6131S/NCP6131SA dual output four plus one phase buck solution is optimized for Intel VR12 compatible CPUs. The controller combines true differential voltage sensing, differential inductor DCR current sensing, input voltage feed-forward, and adaptive voltage positioning to provide accurately regulated power for both desktop and notebook applications.

The control system is based on dual-edge pulse width modulation (PWM) combined with DCR current sensing providing the fastest initial response to dynamic load events and reduced system cost. It also sheds to single phase during light load operation and can auto frequency scale in light load while maintaining excellent transient performance.

## Features

- Meets Intel VR12/IMVP7 specifications
- Current mode dual-edge modulation for fastest initial response to transient loading
- Dual high performance operational error amplifier
- One digital soft start ramp for both rails

## Applications

- Desktop and notebook processors

## Technical Documentation & Design Resources

[Package Drawings \(2\)](#)

### Availability & Samples ▶ Specifications

Product	Status	Compliance	Description	Package		MSL		Container		Budgetary Price/Unit
				Type	Case Outline	Type	Temperature	Type	Qty.	
NCP6131D52MNR2G	Consult Sales Office	Pb-free Halide free	IMVP7 1-, 2-, 3-Phase CPU Controller + 1-Phase GPU Controller	QFN-52	485AV	1	260	Tape and Reel	2500	
NCP6131S52MNR2G	Active	Pb-free Halide free	IMVP7 1-, 2-, 3-Phase CPU Controller + 1-Phase GPU Controller	QFN-52	485BE	1	260	Tape and Reel	2500	<a href="#">Sample Inventory</a>

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