muRata
INNOVATOR IN ELECTRONICS

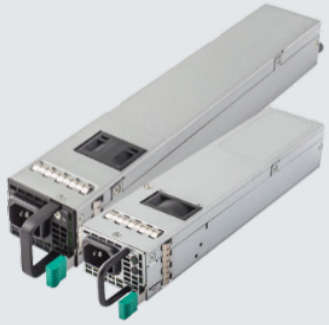
Power Solutions for Server, Storage, and Networking Equipment

AC-DC and DC-DC power supplies

TITANIUM FRONT-END PRODUCTS

AC-DC Power Supplies

Slim 54mm Series for Server, Storage, and Networking



Product Features

- High Power efficiency 96% at 50% Load beyond 80Plus requirements
- N+1 redundancy capable; hot plugging (up to 8 in parallel with active current sharing)
- Power Management PMBus™ / I^2C interface protocol for control, programming, and monitoring
- Current sharing on 12V main output; Integral MOSFET ORing isolation
- Wide AC input voltage range with active PFC
- Output Voltage 12VDC
- Overtemperature, overvoltage and overcurrent protection

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U54T-W-800-12-HxxC	800 Watt	90 - 264Vac	12V	228.6mm x 54.5mm x 40 mm 9" x 2.15" x 1U
D1U54T-W-1200-12-HxxAC	1200 Watt	90 - 264Vac	12V	228.6mm x 54.5mm x 40 mm 9" x 2.15" x 1U
D1U54T-W-1500-12-HUxTC	1500 Watt	90 - 264Vac	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
D1U54T-M-1500-12-HUxC	1500 Watt	90 - 305Vac 192-400Vdc	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
D1U54P-M-1500-12-HUxC	1500 Watt	90 - 305Vac 192-400Vdc	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
D1U54T-W-2000-12-HC4TC	2000 Watt	90-264Vac	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
D1U54T-M-2500-12-HxxC	2000 Watt	90 - 305Vac 192 - 400Vdc	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U

CRPS Models (Common Redundant Power Supply) for Server, Storage, and Networking

- High Power density up to 83W/in³
- High Power efficiency 96% at 50% Load beyond 80Plus requirements

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U74T-W-1600-12-HBxC	1600 Watt	90 - 264Vac 180VDC - 300 VDC	12V	185mm x 73.5mm x 40 mm 7.28" x 2.89" x 1U
D1U74T-W-2700-12-HBxC	2700 Watt	90 - 264Vac 180VDC - 300 VDC	12V	185mm x 73.5mm x 40 mm 7.28" x 2.89" x 1U

86mm Series for Server, Storage, and Networking

- High Power efficiency 96% at 50% Load beyond 80Plus requirements

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U86T-W-800-12-HB4C	800 Watt	90 - 264Vac	12Vdc	196mm x 86mm x 40 mm 7.75" x 3.4" x 1U
D1U86T-W-1600-12-HBxC	1600 Watt	90 - 264Vac	12Vdc	196mm x 86mm x 40 mm 7.75" x 3.4" x 1U
D1U86T-W-2200-12-HBxC	2200 Watt	90 - 264Vac	12Vdc	196mm x 86mm x 40 mm 7.75" x 3.4" x 1U

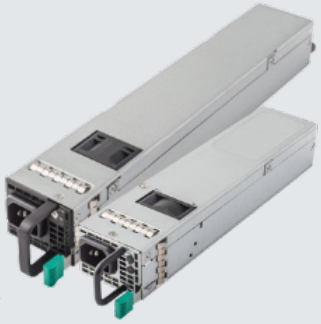
AC/HVDC Input Series for Datacenter, Server, Storage, and Networking

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U54P-M-800-12-HxxBC	800 Watt	90 - 305Vac, 260-400Vdc	12V	236.6mm x 54.5mm x 40mm 9.31” x 2.15” x 1U
D1U54T-M-1500-12-HUxC	1500 Watt	90 - 305Vac, 192-400Vdc	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
D1U54P-M-1500-12-HUxC	1500 Watt	90 - 305Vac, 192-400Vdc	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
D1U54T-M-2500-12-HxxC	2500 Watt	90 - 305Vac, 192 - 400Vdc	12V	321.5mm x 54.5mm x 40 mm 12.65" x 2.15" x 1U
MWOCP74-3000-A-RM	3030 Watt	90 - 305Vac, 192 - 400Vdc	12V	550mm x 73.5mm x 40 mm 21.65" x 2.89" x 1U
MWOCP68-3600-D-RM	3600 Watt	180 - 305Vac	54.5V	490mm x 68mm x 40 mm 19.29" x 2.68" x 1U

PLATINUM FRONT-END PRODUCTS

AC-DC Power Supplies

Slim 54mm Series for Server, Storage, and Networking



Product Features

- High Power efficiency 94% at 50% Load beyond 80Plus requirements
- Current sharing on 12V main output; Integral MOSFET ORing isolation
- N+1 redundancy capable; hot plugging (up to 8 in parallel with active current sharing)
- Power Management PMBus™ / I^2C interface protocol for control, programming, and monitoring
- Wide AC input voltage range with active PFC (Power Factor Correction)
- Output Voltage 12VDC
- Overtemperature, overvoltage and overcurrent protection

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U54P-W-450-12-HxxC	450 Watt	90 - 264Vac	12V	228.6mm x 54.5mm x 40 mm 9" x 2.15" x 1U
D1U54P-W-650-12-HxxC	650 Watt	90 - 264Vac	12V	228.6mm x 54.5mm x 40 mm 9" x 2.15" x 1U
D1U54P-M-800-12-HxxBC	800 Watt	90 - 305Vac 192-400Vdc	12V	236.6mm x 54.5mm x 40mm 9.31" x 2.15" x 1U
D1U54P-W-1200-12-HxxPC	1200 Watt	90-264Vac	12V	321.5mm x 54.5mm x 40 mm 12.66" x 2.15" x 1U
D1U54P-W-1500-12-HxxTC	1500 Watt	90-264Vac	12V	321.5mm x 54.5mm x 40 mm 12.66" x 2.15" x 1U
D1U54P-W-1500-12-HxxTC	1500 Watt	90-264Vac	12V	321.5mm x 54.5mm x 40 mm 12.66" x 2.15" x 1U
D1U54P-W-2000-12-HxxC	2000 Watt	90-264Vac	12V	321.5mm x 54.5mm x 40 mm 12.66" x 2.15" x 1U

86mm Series for Server, Storage, and Networking

- High Power efficiency 94% at 50% Load beyond 80Plus requirements

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U86P-W-1600-12-HBxDC	1600 Watt	90 - 264Vac	12V	196mm x86mm x 1U 7.75" x 3.4" x 1U
D1U86P-W-2200-12-HBxDC	2200 Watt	90 - 264Vac	12V	196mm x86mm x 1U 7.75" x 3.4" x 1U

DC-DC Power Supplies for Telecom and Networking

Product Features

- Telecom DC input voltage and input connector
- Current sharing on 12V main output; Integral MOSFET ORing isolation
- N+1 redundancy capable; hot plugging (up to 8 in parallel with active current sharing)
- Power Management PMBus™ / I^2C interface protocol for control, programming, and monitoring
- Overtemperature, overvoltage and overcurrent protection

Model	Output Power	Input Voltage	Output Voltage	Package Dimensions (L x W x H)
D1U54-D-450-12-HxxC	450W	40 - 72Vdc	12V	228.6mm x 54.5mm x 40mm 9" x 2.15" x 1U
D1U54-D-650-12-HxxC	650W	40 - 72Vdc	12V	228.6mm x 54.5mm x 40mm 9" x 2.15" x 1U
D1U54-D-800-12-HxxBC	800W	40 - 72Vdc	12V	236.6mm x 54.5mm x 40mm 9.31" x 2.15" x 1U
D1U54-D-1200-12-HxxAC	1200W	40 - 72Vdc	12V	228.6mm x 54.5mm x 40mm 9' x 2.15" x 1U
D1U54-D-1200-12-HxxPC	1200W	40 - 72Vdc	12V	321.5mm x 54.5mm x 40mm 12.66' x 2.15" x 1U
D1U54-D-1500-12-HxxC	1500W	40 - 72Vdc	12V	321.5mm x 54.5mm x 40mm 12.66' x 2.15" x 1U
D1U86-D-1600-12-HBxDC	1600W	40 - 72Vdc	12V	196mm x86mm x 1U 7.75" x 3.4" x 1U
D1U54-D-2000-12-HxxC	2000W	40 - 72Vdc	12V	321.5mm x 54.5mm x 40mm 12.66' x 2.15" x 1U
D1U54-D-2500-12-HxxC	2500W	40 - 72Vdc	12V	321.5mm x 54.5mm x 40mm 12.66' x 2.15" x 1U

AC-DC Open Frame Power Supplies

Open Frame

Product Features

- From 250 to 1000 Watts output power with forced air cooling
- Up to 95% efficiency at 50% load
- Designed to comply with IEC60601-1-2, 4th Edition EMC Standard Requirements

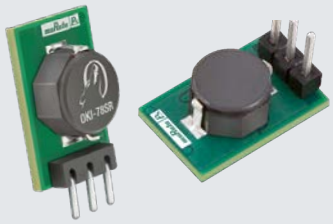
Model	Natural Convection Cooling	Forced Air Cooling	Main Output Voltage	Aux Output	Product Dimensions (L x W x H)
PQC250-12xxx	250W	NA	12Vdc	5V @ 2.5W	127mm x 76.2mm x 35.2mm 5" x 3" x 1.3"
PQC250-48 (*POE compliant)	250W	NA	48Vdc	5V @ 2.5W	127mm x 76.2mm x 35.2mm 5" x 3" x 1.3"
PQC250-54 (*POE compliant)	250W	NA	54Vdc	5V @ 2.5W	127mm x 76.2mm x 35.2mm 5" x 3" x 1.3"
MVAC400-12xxx	250W	400W	12Vdc	5V @ 2.5W	127mm x 76.2mm x 35.6mm 5" x 3" x 1.4"
MVAC400-48xxx	250W	400W	50Vdc	5V @ 2.5W	127mm x 76.2mm x 35.6mm 5" x 3" x 1.4"
MVAC400-54 (*POE Capable)	250W	400W	54Vdc	N/A	127mm x 76.2mm x 35.6mm 5" x 3" x 1.4"
PQU650-12	450W	650W	12Vdc	12V @ 7.2W	152.4mm x 101.6mm x 39.97mm 6" x 4 x 1.57"
PQU650-48	450W	650W	48Vdc	12V @ 7.2W	152.4mm x 101.6mm x 39.97mm 6" x 4 x 1.57"
PQU650-54	450W	650W	54Vdc	12V @ 7.2W	152.4mm x 101.6mm x 39.97mm 6" x 4 x 1.57"
PQU1000-12	800W	1000W	12Vdc	12V @ 12W	203.2mm x 127mm x 39.97mm 8" x 5 x 1.57"
PQU1000-48	800W	1000W	48Vdc	12V @ 12W	203.2mm x 127mm x 39.97mm 8" x 5 x 1.57
PQU1000-54	800W	1000W	54Vdc	12V @ 12W	203.2mm x 127mm x 39.97mm 8" x 5 x 1.57
PQU1000-COVER	Optional Cover on PQU1000				
PQU1000-FT-COVER	Optional fan Cover on PQU1000				
PQU-COVER	Optional PQU650 Coverkit				
PQU650-F-COVER	Optional PQU650 Cover with fan integrated				

*POE (Power over Ethernet)

REGULATED DC-DC CONVERTERS

Non-Isolated Switching Regulator DC-DC

Product Features



- Direct replacement for 3-terminal 78xx-series linear regulators
- 7-36Vin (3.3 & 5Vout), 15-36Vin (12Vout)
- Fixed Output: 3.3 or 5V @ 1.5A or 12V @ 1.0A
- Vertical SIP or horizontal mount, small footprint package

Series	Power	Vin	Vout	Model Specific Features
OKI-78SR	1 - 1.5Amp	7 - 36 Vin or 15 - 75 Vin	3.3, 5, 12 Vout	Horizontal or Vertical Mount

Bus Converter Digital Control

Product Features

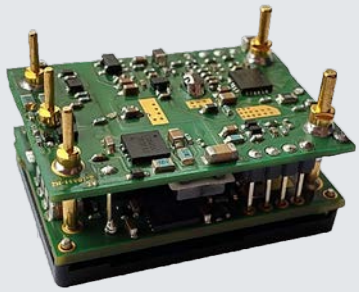
- High reliability
- 1/4 & 1/8 brick footprint
- Positive or negative on/off logic
- -40°C to +85°C Operation
- Industry standard pin out
- Optional PMBus configuration
- Voltage droop load sharing for parallel operation

Series	Power	Vin	Vout	Available sizes	Model Specific Features
DSQ	600W	36 - 75Vin	12 Vout	**1/4 brick**	DOSA Digital Brick with PMBus
DAQ	600W	36 - 75Vin	12 Vout	**1/4 brick**	DOSA Brick with Sense & Trim
DCQ	600W	36 - 75Vin	12 Vout	**1/4 brick**	DOSA 5 pin IBC
DSE	400W	36 - 75Vin	12 Vout	**1/8 brick**	DOSA Digital Brick with PMBus
DAE	400W	36 - 75Vin	12 Vout	**1/8 brick**	DOSA Brick with Sense & Trim
DCE	400W	36 - 75Vin	12 Vout	**1/8 brick**	5 pin IBC
DBQ	420W	36 - 75Vin	3.3, 5, 12 Vout	**1/4 brick**	ABC with PMBus sense & trim
DVQ	420W	36 - 75Vin	3.3, 5, 12 Vout	**1/4 brick**	5 Pin IBC
DBE	300W	36 - 75Vin	3.3, 5, 12 Vout	**1/8 brick**	ABC with PMBus sense & trim
DVE	300W	36 - 75Vin	3.3, 5, 12 Vout	**1/8 brick**	5 Pin IBC

Bus Converter Narrow Input Range

Product Features

- For use with AC/DC front end
- Monotonic start-up into Pre-bias load
- 1/8 & 1/16 brick footprint
- -40°C to +85°C Operation
- Optional Load Sharing of two or more modules

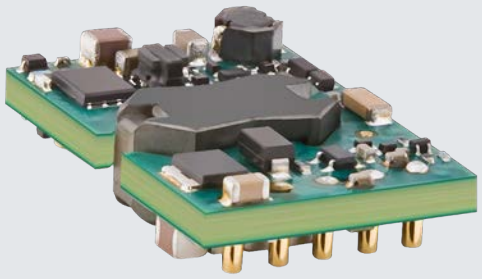


Series	Power	Vin	Vout	Available Sizes
DRE 11.4/53	600W	36 - 60Vin	11.4 Vout	**1/8 brick**
RBS-10.2/25-L48	250W	45 - 56 Vin	10.2 Vout	**1/16 brick**
MPQ400-10V40-L50-C	400W	45 - 56 Vin	10Vout	**1/4 brick**
MPQ700-10V70-L50-C	700W	45 - 56 Vin	10Vout	**1/4 brick**
MPQ1K-10V100-L50-C	1KW	45 - 56 Vin	10Vout	**1/4 brick**

DC-DC Single Output Wide Input Range Bricks

Product Features

- 1/16, 1/8 & 1/32 brick footprint
- 2:1 and 4:1 input range options
- -40°C to +85°C Operation
- Trimmable outputs
- Fully protected
- Stable “no-load” operation



Series	Power	Vin	Vout	Available sizes	Model Specific Features
RBE	240W	36 - 75 Vin	12 Vout	**1/8 brick**	Baseplate for optimal thermal performance
UEE	150W	36 - 75 Vin	3.3, 5, & 12 Vout	**1/8 brick**	Baseplate for optimal thermal performance
ULS	100W	36 - 75 Vin	3.3, 5, 6.5 & 12 Vout	**1/16 brick**	Through hole
UWE	75W or 120W	9 - 36 Vin or 18 - 75 Vin	3.3, 5, 12 & 24 Vout	**1/8 brick**	Universal input range
UWS	54W	9 - 36 Vin or 36 - 75 Vin	3.3, 5, 12, 15 & 24 Vout	**1/16 brick**	Universal input range
ULS	30W	36 - 75 Vin	3.3, 5, 6.5 & 12 Vout	**1/16 brick**	Through hole
ULT	30W	36 - 75 Vin	3.3, 5, 6.5 & 12 Vout	**1/32 brick**	Through hole & SMT package options

Power over Ethernet (POE) DC-DC Modules

Product Features

- Full Output Power Available @ 65°C, natural convection cooling
- Fully I/O protected, Thermal shutdown
- Low Vout ripple/noise

Series	Power Sourcing Equip (PSE) Powered Device (PD)	Power	Vin	Vout	Available Sizes
SPC-54/4.4-L12PG-C	PSE	240W	11 - 13.2Vin	54Vout @ 4.4A	SIP (single inline package) Horizontal and vertical mount
ULE-53/1.1-D48N-C	PSE	60W	36 - 75Vin	53Vout @ 1.1A	1/8 brick
MYBSS054R6EBF	PSE	30W	10.8 - 27.0Vin	54Vout @ 0.56A	22.4 x 35.5 x 8.9mm
MYBSP00502ABF	PD	10W	37 - 57Vin	5Vout @ 2A	14.8 x 26.0 x 6.20mm
MYBSP01201ABF	PD	12W	37 - 57Vin	12Vout @ 1A	14.8 x 26.0 x 6.20mm
MYBSP0055AABFT	PD	25.5W	37 - 57Vin	5Vout @ 5.1A	22.4 x 35.5 x 10.55mm
MYBSP0122BABFT	PD	25.5W	37 - 57Vin	12Vout @ 2.125A	22.4 x 35.5 x 10.55mm
MYBSP01206AZFT	PD	72W	41 - 57Vin	12Vout @ 6A	22.2 x 56.4 x 8.52mm

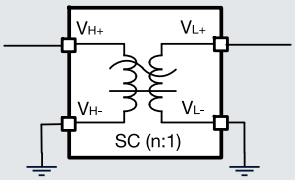
Power DC-DC Amplifier Modules

Product Features

- Optional Baseplate for conduction cooling applications
- 1/8 , 1/4 and 1/2 brick footprint
- -40°C to +100°C baseplate operating temperature range
- Pre-Bias Start-up protection
- Wide trim range

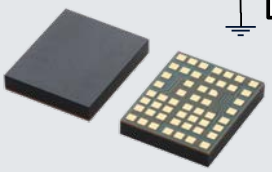
Series	Power	Vin	Vout	Available Sizes	Model Specific Features
PAH	350W	18 - 36 Vin or 36 - 75 Vin	Vout trimmable 16.8V - 32.7V (29.8Vout Nominal)	**1/2 brick**	93% Efficiency (Typical)
PAQ	150W	36 - 75Vin	Vout trimmable 23.8V - 32.7V (29.8Vout Nominal)	**1/4 brick**	With baseplate to Ground connection pin
PAE	100W	36 - 75Vin	Vout trimmable 23.8V - 32.7V (29.8Vout Nominal)	**1/8 brick**	Baseplate options for conduction cooling

Charge Pump Capacitor Divider



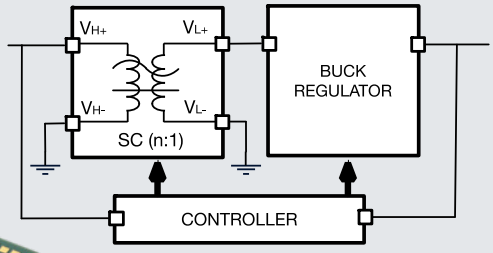
Product Features

- Virtually lossless (typical 98%) conversion efficiency
- Soft switching topology with patented “Adiabatic” function for low noise
- Integer ratio (2,3 & 4) step-down
- Parallel operation for higher power levels



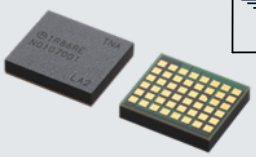
Product Family	Part Number	Divider Ratio	Vin	Vout	Iout	Package (W x L x H)
UltraCP™	MYC0300	Div.3	8.2 – 15V	Vin/3	10A	11.6 x 10.8 x 2.1 mm (LGA)
		Div.2	5.5 – 10V	Vin/2		
	MYC0409	Div.4	20 – 60Vin	Vin/4	6A	11.5 x 9.5 x 2.1 mm (LGA)
FlexiCP™	PE25200	Div.3	8.2 – 15V	Vin/3	10A	4.45 x 6.85 x 0.492 mm (BGA)
		Div.2	5.5 – 10V	Vin/2		
	PE25204	Div.4	20 – 60Vin	Vin/4	6A	3.6 x 5.8 x 0.492 mm (BGA)

2-Stage DC-DC Step-down Regulator



Product Features

- Virtually lossless charge pump followed by buck regulator
- Ultra low profile for back side of PCB
- Low EMI
- Low input/output ripple
- I^2C/PMBus available



Product Family	Part Number	Vin	Vout	Iout	Interface	Product Dimensions (L x W x H)
UltraBK™	MYTNA1R84RELA2RA	6.0 – 14.4V	0.7 – 1.8V	4A	N/A	9.0 x 10.5 x 2.1 mm (LGA)
	MYTNC1R84RELA2RA	6.0 – 14.4V	0.7 – 1.8V	4A	I^2C	9.0 x 10.5 x 2.1 mm (LGA)
	MYTNA1R86RELA2RA	6.0 – 14.4V	0.7 – 1.8V	6A	N/A	9.0 x 10.5 x 2.1 mm (LGA)
	MYTNC1R86RELA2RA	6.0 – 14.4V	0.7 – 1.8V	6A	I^2C	9.0 x 10.5 x 2.1 mm (LGA)
	MYT0424	9.6 – 15.5V	0.6 – 1.8V	4A x 4	PMBus	12.2 x 11.6 x 2.1 mm (LGA)
FlexiBK™	PE24103	9.6 – 15.5V	0.6 – 1.8V	4A x 4	PMBus	7.28 x 3.86 x 0.523 mm (BGA)

Global locations

For details please visit www.murata.com

Power Solutions for Server, Storage, Networking Equipment

⚠Note

1 Export Control

For customers outside Japan:

No Murata products should be used or sold, through any channels, for use in the design, development, production, utilization, maintenance or operation of, or otherwise contribution to (1) any weapons (Weapons of Mass Destruction [nuclear, chemical or biological weapons or missiles] or conventional weapons) or (2) goods or systems specially designed or intended for military end-use or utilization by military end-users.

For customers in Japan:

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

2 Please contact our sales representatives or product engineers before using the products in this brochure for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage a third party's life, body or property, or when one of our products is intended for use in applications other than those specified in this catalog.

1. *Aircraft equipment*
2. *Undersea equipment*
3. *Medical equipment*
4. *Traffic signal equipment*
5. *Data-processing equipment*
6. *Aerospace equipment*
7. *Power plant equipment*
8. *Transportation equipment (vehicles, trains, ships, etc.)*
9. *Disaster prevention / crime prevention equipment*
10. *Application of similar complexity and/or reliability requirements to the applications listed above*

3 Product specifications in this catalog are as of October 2021. They are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering. If there are any questions, please contact our sales representatives or product engineers.

4 Please read rating and & CAUTION (for storage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.

5 This catalog has only typical specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

6 Please note that unless otherwise specified, we shall assume no responsibility whatsoever for any conflict or dispute that may occur in connection with the effect of our and/or a third party's intellectual property rights and other related rights in consideration of your use of our products and/or information described or contained in our catalogs. In this connection, no representation shall be made to the effect that any third parties are authorized to use the rights mentioned above under licenses without our consent.

7 No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.

Follow us on:

muRata
INNOVATOR IN ELECTRONICS