

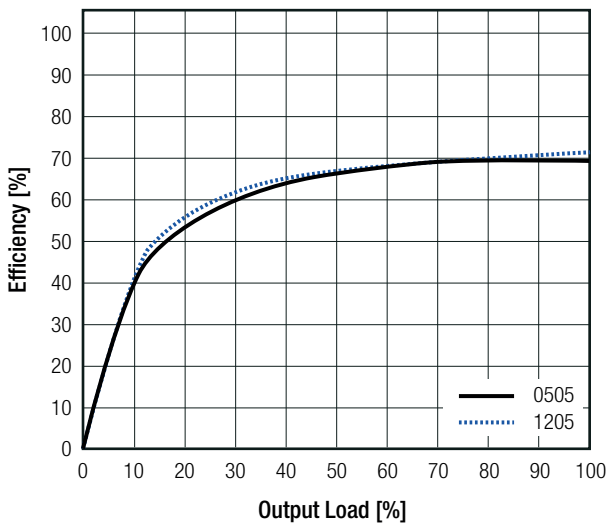
Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

BASIC CHARACTERISTICS

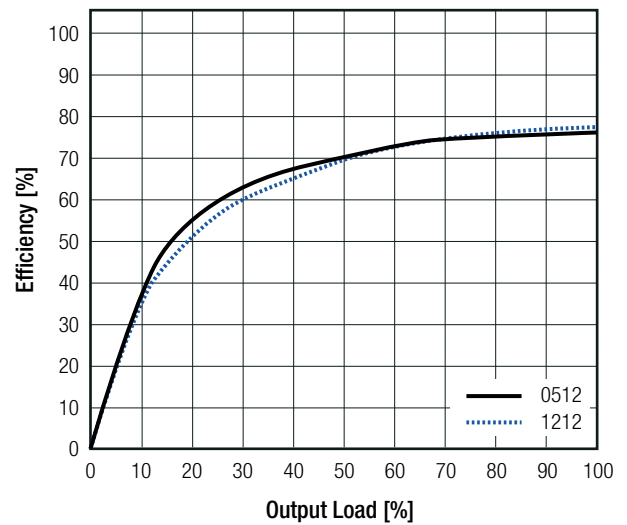
Parameter	Condition	Min.	Typ.	Max.
Internal Input Filter				capacitor
Input Voltage Range			±10%	
Minimum Load		0%		
Start-up time				250ms
Internal Operating Frequency		50kHz	100kHz	120kHz
Output Ripple and Noise	20MHz BW			100mVp-p

Efficiency vs. Load

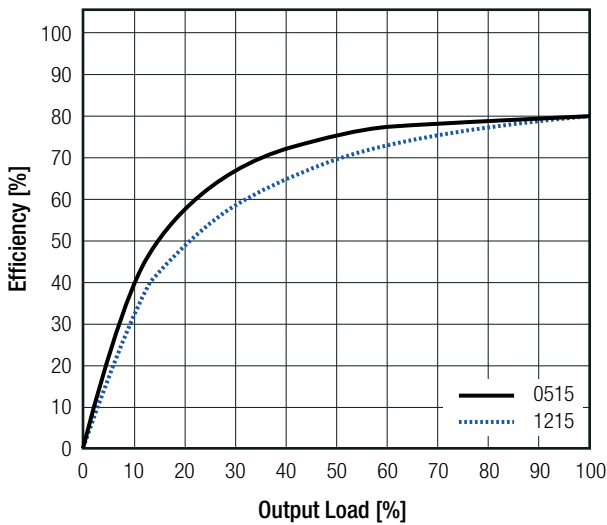
RP-xx05S



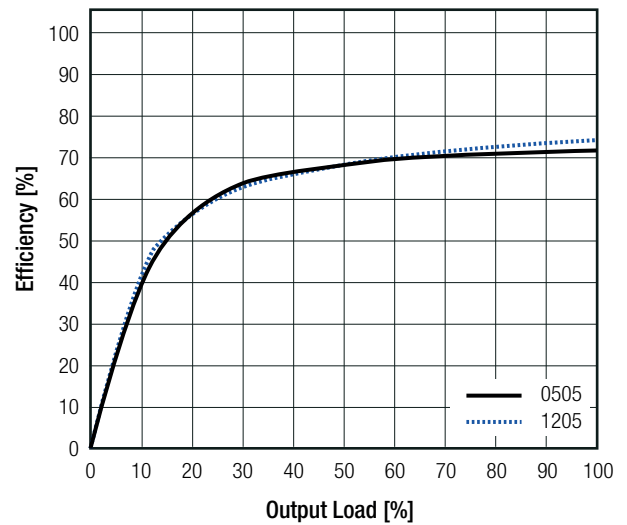
RP-xx12S



RP-xx15S



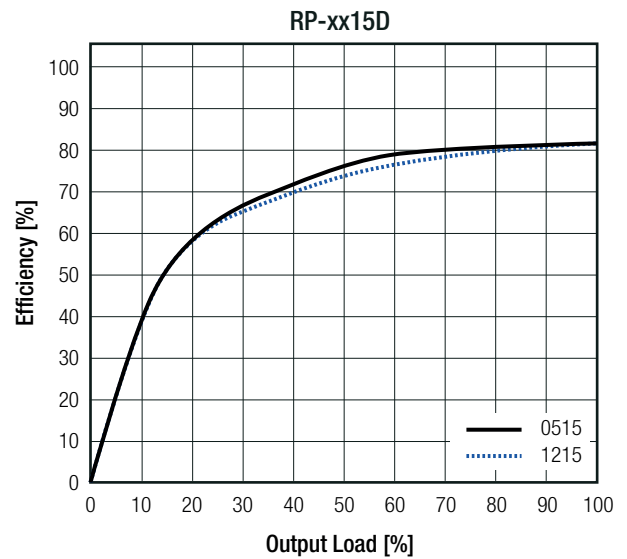
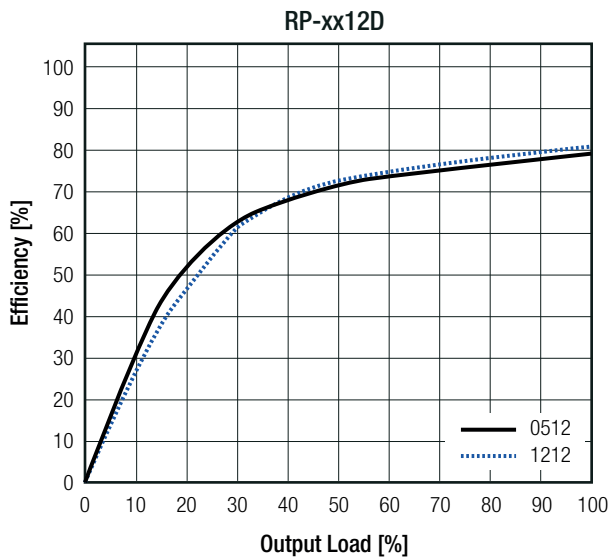
RP-xx05D



continued on next page

Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

Efficiency vs. Load



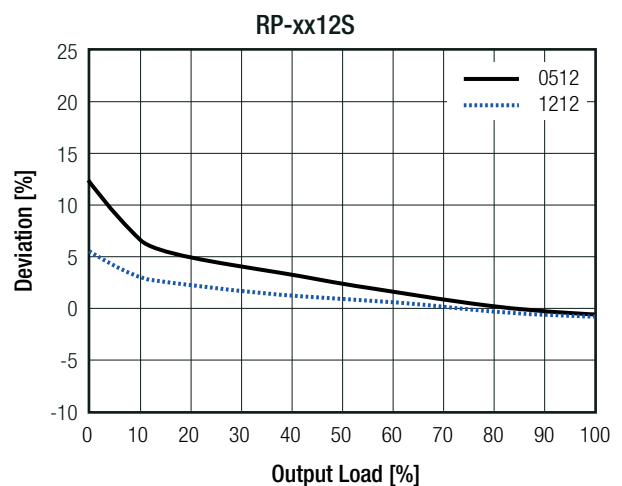
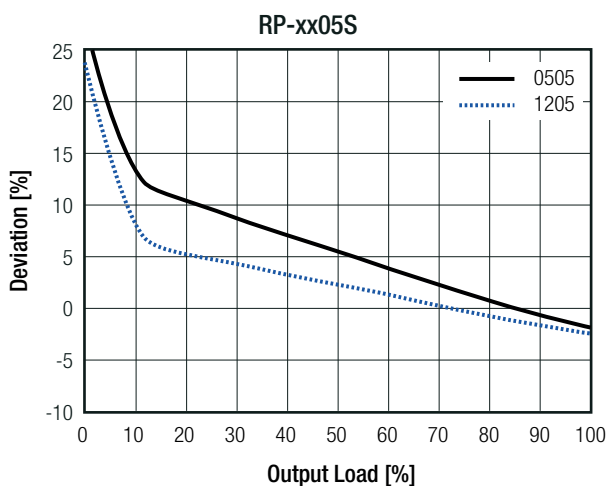
REGULATIONS

Parameter	Condition		Value
Output Accuracy			±5.0% max.
Line Regulation	low line to high line		±1.2% of 1.0% Vin typ.
Load Regulation ⁽⁵⁾	10% to 100% load	3.3Vout	20.0% max.
		5Vout	15.0% max.
		9, 12, 15, 24Vout and RP-xx1509D	10.0% max.

Notes:

Note5: Operation below 10% load will not harm the converter, but specifications may not be met

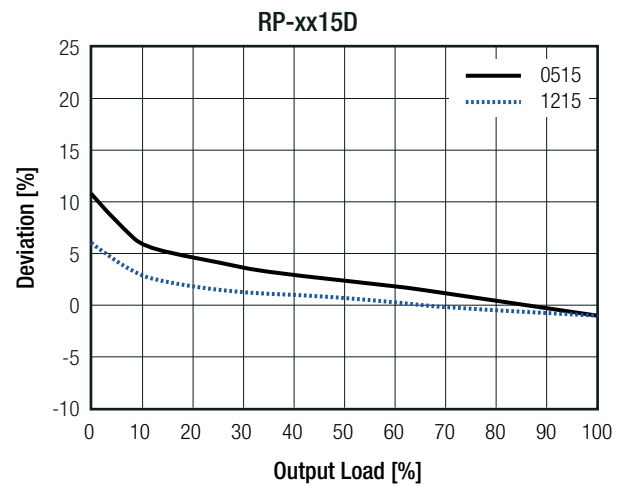
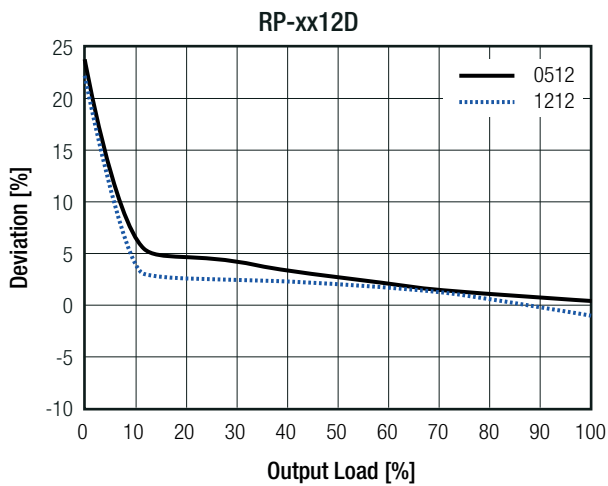
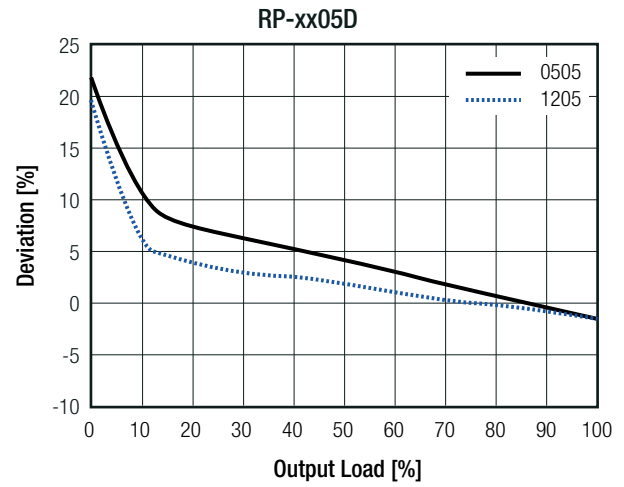
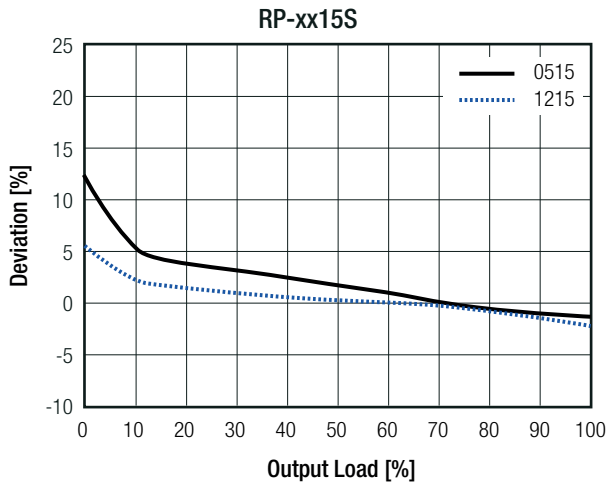
Deviation vs. Load



continued on next page

Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

Deviation vs. Load



PROTECTIONS			
Parameter	Type		Value
Short Circuit Protection (SCP)	without suffix with suffix "/P"		1 second continuous
Isolation Voltage ⁽⁶⁾	I/P to O/P	tested for 1 second rated for 1 minute	5.2kVDC 2kVAC/60Hz
Isolation Resistance			20GΩ min.
Isolation Capacitance			4pF min. / 10pF max.
Insulation Grade			basic (IEC/EN60950-1) functional (IEC/EN60601-1)

Notes:

Note6: For repeat Hi-Pot testing, reduce the time and/or the test voltage

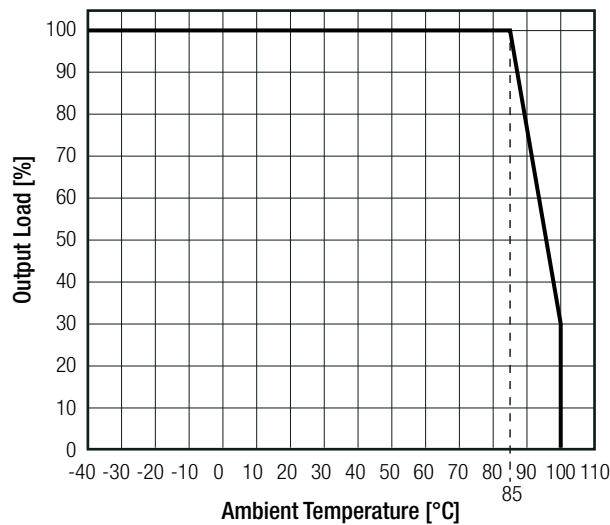
Note7: Refer to local wiring regulations if input over-current protection is also required. Recommended fuse: T1A slow blow type

Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

ENVIRONMENTAL

Parameter	Condition		Value
Operating Temperature Range	full load (see graph)		-40°C to +85°C
Maximum Case Temperature			+105°C
Operating Altitude			3000m
Operating Humidity	non-condensing		95% RH max.
Pollution Degree			PD2
MTBF	according to MIL-HDBK-217F, G.B.	+25°C	18400 x 10 ³ hours
		+85°C	6900 x 10 ³ hours

Derating Graph



SAFETY AND CERTIFICATIONS

Certificate Type (Safety)	Report / File Number	Standard
Information Technology Equipment, General Requirements for Safety	E358085-A6-UL ^(8,9)	UL60950-1, 2nd Edition:2007 CAN/CSA C22.2 No. 60950-1-03, 2nd Edition:2007
Information Technology Equipment, General Requirements for Safety	SPCLVD1602031 ⁽⁹⁾	IEC60950-1:2005, 2nd Edition + A2:2013 EN60950-1:2006 + A2:2013
Medical electrical equipment Part 1: General requirements for basic safety and essential performance	WD-SE-R-180676-A0 ⁽⁸⁾	IEC60601-1:2005 + A1:2012, 3rd Edition EN60601-1:2006 + A1:2013 + A12:2014
EAC	RU-AT.49.09571	TP TC 004/2011
RoHS 2+		RoHS-2011/65/EU + AM-2015/863

EMC Compliance

EMC Compliance	Condition	Standard / Criterion
Electromagnetic compatibility of multimedia equipment - Emission requirements	with external filter (see filter suggestion below)	EN55032, Class B EN55032, Class A

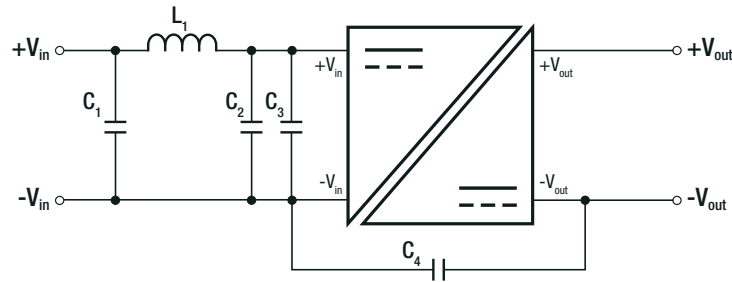
Notes:

- Note8: excluded +15/-9 version
- Note9: excluded suffix „/X2“

continued on next page

Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

EMC Filter Suggestion according to EN55032



Component List Class A

MODEL	C2	C3
RP-0505S	10µF	4.7µF
RP-0515S		
RP-2405S	100V MLCC	50V MLCC
RP-2424S		

Component List Class B

MODEL	C1	L1	C4 (safety)
RP-0505S	10µF	22µH choke RLS-226	2.2nF
RP-0515S			
RP-2405S	100V MLCC		
RP-2424S			

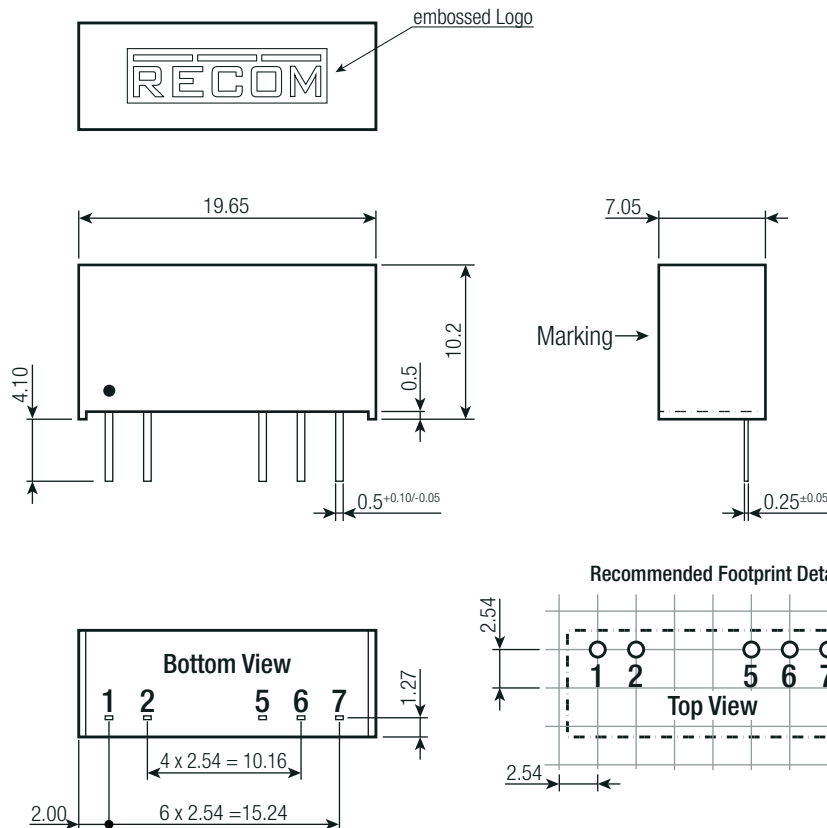
Notes:

Note10: Filter suggestions are valid for indicated part numbers only. For other part numbers, please contact RECOM tech support for advice

DIMENSION AND PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	case potting PCB	non-conductive black plastic (UL94 V-0) epoxy, (UL94 V-0) FR4, (UL94 V-0)
Dimension (LxWxH)		19.65 x 7.05 x 10.2mm
Weight		2.4g typ.

Dimension Drawing (mm)

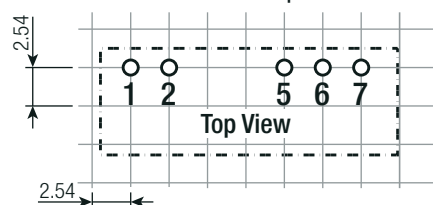


Pinning information

Pin #	Single	Dual	/X2
1	+Vin	+Vin	+Vin
2	-Vin	-Vin	-Vin
5	-Vout	-Vout	no Pin
6	no pin	Com	-Vout
7	+Vout	+Vout	+Vout

Tolerance: xx.x= ±0.5mm
xx.xx= ±0.25mm

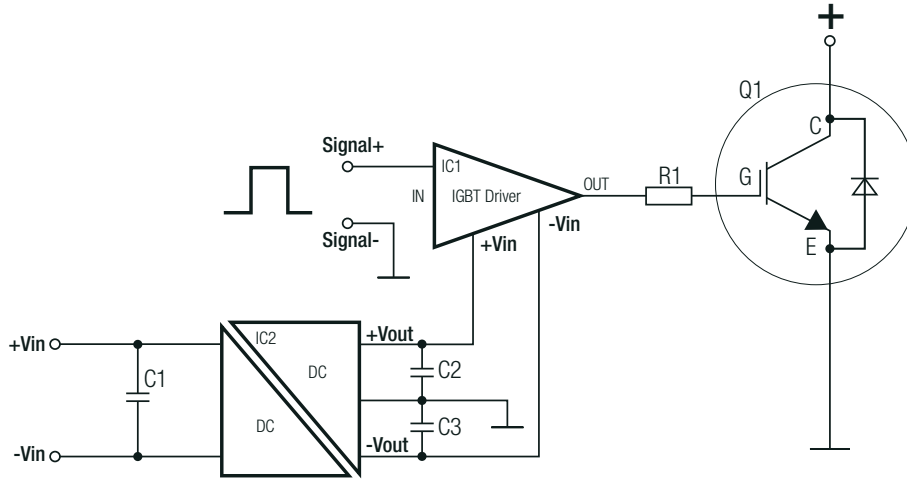
Recommended Footprint Details



Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

INSTALLATION AND APPLICATION

IGBT Application Circuit



PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimension (LxWxH)	tube	520.0 x 16.0 x 9.0mm
Packaging Quantity	tube	25pcs
Storage Temperature Range		-55°C to + 125°C
Storage Humidity	non-condensing	95% RH max.

The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without RECOM's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The applicant shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

RECOM:

[RP-0505D/P](#) [RP-0505S/P](#) [RP-0509D](#) [RP-0509D/P](#) [RP-0509S/P](#) [RP-0512D](#) [RP-0512D/P](#) [RP-0512S](#) [RP-0512S/P](#)
[RP-0515D](#) [RP-0515D/P](#) [RP-0515S/P](#) [RP-0524D](#) [RP-0524D/P](#) [RP-0524S/P](#) [RP-053.3D](#) [RP-053.3D/P](#) [RP-053.3S](#)
[RP-053.3S/P](#) [RP-0905D](#) [RP-0905D/P](#) [RP-0905S](#) [RP-0905S/P](#) [RP-0909D](#) [RP-0909D/P](#) [RP-0909S](#) [RP-0909S/P](#)
[RP-0912D](#) [RP-0912D/P](#) [RP-0912S](#) [RP-0912S/P](#) [RP-0915D](#) [RP-0915D/P](#) [RP-0915S](#) [RP-0915S/P](#) [RP-0924D](#) [RP-](#)
[0924D/P](#) [RP-0924S](#) [RP-0924S/P](#) [RP-093.3D](#) [RP-093.3D/P](#) [RP-093.3S](#) [RP-093.3S/P](#) [RP-1205D](#) [RP-1205D/P](#) [RP-](#)
[1205S](#) [RP-1205S/P](#) [RP-1209D](#) [RP-1209D/P](#) [RP-1209S](#) [RP-1209S/P](#) [RP-1212D](#) [RP-1212D/P](#) [RP-1212S/P](#) [RP-](#)
[1215D](#) [RP-1215D/P](#) [RP-1215S](#) [RP-1215S/P](#) [RP-1224D](#) [RP-1224D/P](#) [RP-1224S](#) [RP-1224S/P](#) [RP-123.3D](#) [RP-](#)
[123.3D/P](#) [RP-123.3S](#) [RP-123.3S/P](#) [RP-1505D](#) [RP-1505D/P](#) [RP-1505S](#) [RP-1505S/P](#) [RP-1509D](#) [RP-1509D/P](#) [RP-](#)
[1509S](#) [RP-1509S/P](#) [RP-1512D](#) [RP-1512D/P](#) [RP-1512S](#) [RP-1512S/P](#) [RP-1515D](#) [RP-1515D/P](#) [RP-1515S](#) [RP-](#)
[1515S/P](#) [RP-1524D](#) [RP-1524D/P](#) [RP-1524S](#) [RP-1524S/P](#) [RP-153.3D](#) [RP-153.3D/P](#) [RP-153.3S](#) [RP-153.3S/P](#) [RP-](#)
[2405D](#) [RP-2405D/P](#) [RP-2405S/P](#) [RP-2409D](#) [RP-2409D/P](#) [RP-2409S](#) [RP-2409S/P](#) [RP-2412D](#) [RP-2412D/P](#) [RP-](#)
[2412S](#)