

Power Management and Interface Products for Cable, Satellite and IP STB/Home Gateway

Power Conversion

- Step-Down Regulators
- LDOs
- DDR Termination

System Controls

- Power Switches
- Supervisors

Programmable Power

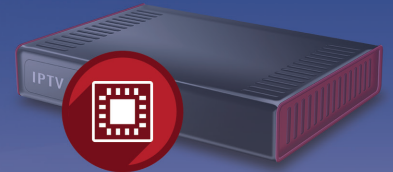
- Universal PMICs

Serial Transceivers

- RS-232 Transceivers
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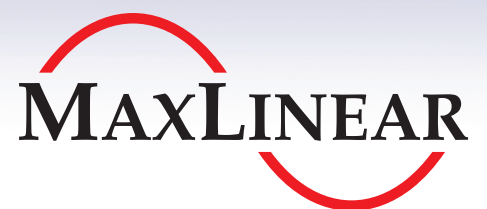
Cable STB



IPTV STB



SAT STB



Step Down Regulators

Part Number	Number of Outputs	I _{OUT} /CH (A)	V _{IN} MIN (V)	V _{IN} MAX (V)	I _Q (μA)	V _{OUT} MIN (V)	V _{OUT} MAX (V)	Frequency (kHz)	Accuracy (%)	Efficiency (%)	Package (mm)	Features
XR76108	1	8	3	22	700	0.6	18	200 to 800	0.5	96	5x5 QFN	<ul style="list-style-type: none"> Patented COT control UVLO, OTP, soft-start, hiccup, PGOOD Current limit and short protection
XRP7664	1	2	4.5	18	1000	0.925	16	340	2.0	95	SOIC-8	<ul style="list-style-type: none"> UVLO, OTP, soft-start Light load efficiency and PWM mode Overcurrent and output overvoltage protection
XRP7665	1	3	4.5	18	1000	0.925	16	340	2.0	93	HSOIC-8	
SP6669	1	0.6	2.5	5.5	200	0.6	5	1500	2.0	95	SOT23-5	<ul style="list-style-type: none"> Enable pin Pulse skipping and light load Over temperature protection
XRP6658	1	1	2.5	5.5	15	0.6	5	1500	<3.0	97	SOT23-5	<ul style="list-style-type: none"> Slight load efficiency, PFM and PWM mode Individual enable pin UVLO and over temperature protection
XRP6657	1	1.5	2.5	5.5	240	0.6	5	1300	<2.5	95	DFN-6	<ul style="list-style-type: none"> Enable pin Pulse skipping and light load Over temperature protection
XRP6670	1	3	2.6	5.5	460	0.8	5	300-2500	<2.0	95	DFN-10	<ul style="list-style-type: none"> Enable pin, Power Good flag OTP, OCP and UVLO protection

LDOS

Part Number	Output Current	Output Voltage (V)	V _{OUT} (V) Adjustable		Accuracy (%)	Typical Dropout Voltage (mV)	Operating Voltage (V)		Quiescent Current (μA)	Package	Features
			Min	Max			Min	Max			
SPX5205	150mA	Adj., 1.8, 3, 3.3, 5	1.24	15.725	1	210	2.5	16	70	SOT23-5	<ul style="list-style-type: none"> Reverse battery protection Current limiting and thermal protection
SP6201	200mA	1.8, 3, 3.3, 5			2	320	2.5	7	28	SOT23-5	<ul style="list-style-type: none"> Enable pin Power good indicator
SP6203	300mA	2.8			2	180	2.7	6	45	SOT23-5	<ul style="list-style-type: none"> Low noise: 12μV_{RMS} Enable pin Current limiting and thermal protection
SP6205	500mA	Adj., 3, 3.3	2.7	5.7	2	300	2.7	6	45	SOT23-5	<ul style="list-style-type: none"> Low noise: 12μV_{RMS} (fixed voltage version) Enable pin Current limiting Over temperature protection
		DFN-8									
SPX3819	500mA	Adj., 1.2, 1.5, 1.8, 2.5, 3, 3.3, 5	1.235	15.45	1	340	2.5	16	90	SOT23-5	<ul style="list-style-type: none"> Enable pin Reverse battery protection Current limiting and thermal protection
		DFN-8									
		NSOIC-8									
XRP6272	2A	Adj., 5	0.7	5.3	2	550	1.8	6	30	T0252-5 HSOIC-8	<ul style="list-style-type: none"> Enable and power good functions Current limiting and thermal protection

DDR Termination

Part Number	Output Current	Output Voltage	Accuracy (%)	Operating Voltage (V)		Quiescent Current (µA)	Package	Features
				Min	Max			
XRP2997	2A	Adjustable	1	1.1	5.5	2	HSOIC-8	<ul style="list-style-type: none"> ▪ DDR I/II/III/IV bus termination ▪ Over temperature protection ▪ Overcurrent protection

Power Switches

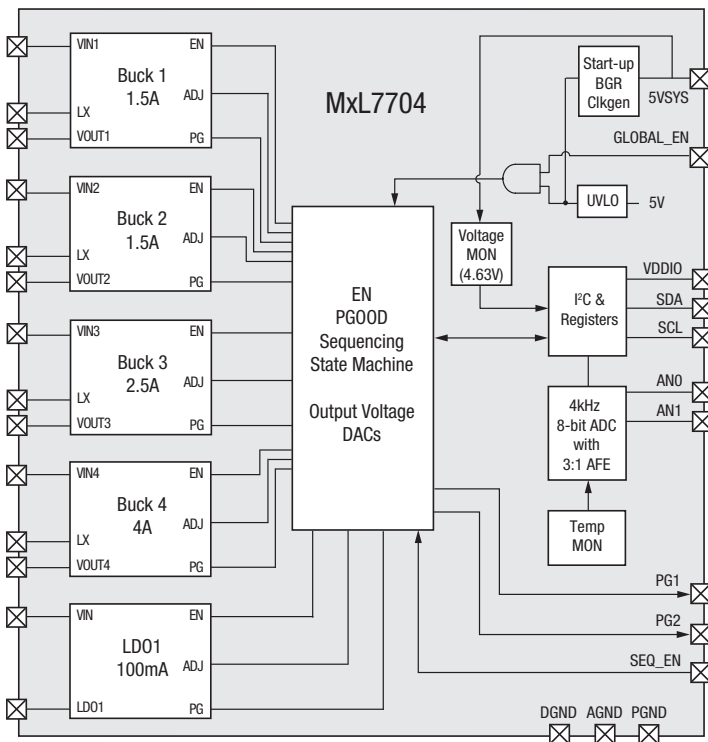
Part Number	Channel(s)	Output Current	Current Limit	Operating Voltage (V)		Quiescent Current (µA)	Package	Features
				Min	Max			
SP2525A	1	500mA	850mA	3	5.5	75	NSOIC-8	<ul style="list-style-type: none"> ▪ Active high or low enable pin(s) ▪ USB 2.0 compliant ▪ Current limiting ▪ Fault flag indicator(s) ▪ Over temperature protection ▪ Undervoltage lock out protection
SP2526A	2	500mA	850mA	3	5.5	110	NSOIC-8	
XRP2526	2	900mA	1.15A	1.8	5.5	65	NSOIC-8	<ul style="list-style-type: none"> ▪ Active high or low enable pin(s) ▪ USB 3.0 compliant ▪ Current limiting ▪ Blanking fault flag indicator(s) ▪ Over temperature/reverse current protection ▪ Undervoltage lock out protection

Supervisors

Part Number	Reset Threshold (V)	Reset Accuracy (mV)	Reset Active	WDI	PFI	MR	Operating Voltage(V)		Quiescent Current (µA)	Package
							Min	Max		
SP705	4.65	150	Low	Y	Y	Y	1.1	5.5	40	NSOIC-8
SP706	4.40	150	Low	Y	Y	Y	1.1	5.5	40	NSOIC-8
SP706R	2.63	80	Low	Y	Y	Y	1.1	5.5	25	NSOIC-8
SP706S	2.93	80	Low	Y	Y	Y	1.1	5.5	25	NSOIC-8 MSOP-8
SP706T	3.08	80	Low	Y	Y	Y	1.1	5.5	25	NSOIC-8 MSOP-8
SP707	4.65	150	Low/High	N	Y	Y	1.1	5.5	40	NSOIC-8
SP708	4.40	150	Low/High	N	Y	Y	1.1	5.5	40	NSOIC-8
SP708S	2.93	80	Low/High	N	Y	Y	1.1	5.5	25	NSOIC-8 MSOP-8
SP708T	3.08	80	Low/High	N	Y	Y	1.1	5.5	25	NSOIC-8
SP809	2.3, 2.6, 2.9	60	Low	N	N	N	0.9	6	1	SOT23-3
SP809N	3.1	60	Low	N	N	N	0.9	6	1	SOT23-3
SP813	4.65	125	High	Y	Y	Y	1.1	5.5	40	NSOIC-8

Universal PMICs

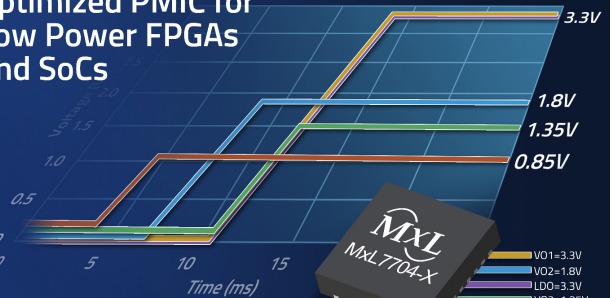
Part Number	Ch.	Output Currents (A)	Operating Voltage (V)		Min Output Voltage (V)	Max Output Voltage (V)	Quiescent Current (mA)	Programmable Frequency Range (MHz)	Package	Features
			Min	Max						
MxL7704	4	1.5 1.5 2.5 4	4	5.5	3 1.3 0.8 0.6	3.6V 1.92V 1.6V 1.4V	8	1 to 2.1	5x5 QFN	<ul style="list-style-type: none"> 2 configurable power good outputs LDO and 2 input 8bit ADC I²C controllable Supported by Excel configuration tool Temperature Monitoring MxL7704-A: Sequencing I/O first core last MxL7704-X: Sequencing for Xilinx® Zynq® Ultrascale+™ ZU2, ZU3



Benefits

- Programmable Power Technology
- Capable of supporting a wide range of processors
- Fast TTM
- Dynamic control
- Easy system integration
- High level integration

Optimized PMIC for Low Power FPGAs and SoCs



Universal PMIC features:

- Sequencing engine with PGOOD handling
- Integrated 8-bit ADC provides telemetry and flexibility



RS-232 Transceivers

Part Number	Tx	Rx	Data Rate (kbps)	HBM ESD (\pm kV)	Contact ESD (\pm kV)	No. of Ext Caps	Shutdown	Internal Charge Pump	TTL Tri-State	Auto On-Line	VL Pin	Supply Voltage Range (V)	Temp Range ($^{\circ}$ C)	Packages
SP3232E	2	2	120	15	8	4		▪				3 to 5.5	0 to 70 -40 to 85	SSOP-16 NSOIC-16 WSOIC-16 TSSOP-16
SP3232EB	2	2	250	15	8	4		▪				3 to 5.5	0 to 70 -40 to 85	SSOP-16 NSOIC-16 WSOIC-16 TSSOP-16 QFN-16
SP3232EH	2	2	460	15	8	4		▪				3 to 5.5	0 to 70 -40 to 85	TSSOP-16
SP3232EU	2	2	1000	15	8	4		▪				3 to 5.5	0 to 70 -40 to 85	SSOP-16 TSSOP-16 NSOIC-16
XR32220	2	2	1000	15	8	4	▪	▪	▪	▪	▪	3 to 5.5	-40 to 85	QFN-24
XR32330	3	3	250	15	8	4	▪	▪	▪	▪	▪	3 to 5.5	-40 to 85	QFN-24

RS-485/RS-422 Transceivers

Part Number	Tx	Rx	Duplex	Data Rate (Mbps)	HBM ESD (\pm kV)	Contact ESD (\pm kV)	Rx Fail-Safe	Shutdown	Multi-Drop Nodes	Hot Swap	Transient Tolerance	Fault Tolerance	Supply Voltage Range (V)	Temp Range ($^{\circ}$ C)	Packages
SP485	1	1	Half	5	2	2	Open		32				5	0 to 70 -40 to 85	NSOIC-8
XR33052	1	1	Half	0.25	15		Open, Short, Idle	▪	320	▪	\pm 100V	\pm 60V	3 to 5.5	-40 to 85 -40 to 105	NSOIC-8



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