

Critical Communications

at CML Micro



**Together transforming how
the world communicates**

WWW.CMLMICRO.COM



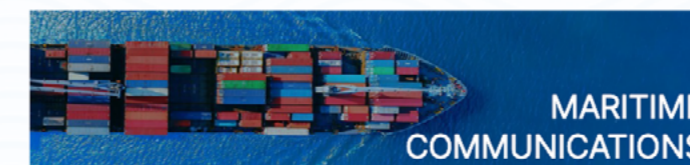
Version 1.0

About CML Micro

CML Micro is a world leader in the design, development and supply of mixed signal, RF, and microwave semiconductors for global communications markets. Headquartered in the UK and with a world-class design team in RF and low-power ICs, we have a global supply operation with offices in the US and Singapore.

We offer a wide range of products, including mmWave MMICs, RF transceivers, baseband processors, data controllers, and interface devices, which are used in various applications such as Critical Communications, Satellite and Network Infrastructure.

TOGETHER TRANSFORMING HOW THE WORLD COMMUNICATES



Critical Communications at CML Micro

CML Micro is the world's leading supplier of solutions for wireless critical communications systems with over half a century's experience supplying customers in these demanding applications. By leveraging our extensive manufacturing expertise and a robust supply chain, we have maintained a consistent and reliable supply of semiconductors, enabling our customers to meet their production timelines and deliver uninterrupted communication services.

Our expertise lies in delivering high-performance IC solutions that enable efficient and reliable voice communications and data transfer, signal processing, and system integration. Our portfolio provides components supporting both RF and baseband functionality, encompassing both leading edge digital and legacy analogue systems.

Browse our product offering within critical communications, or to discover how else CML Micro helps the world communicate, [visit www.cmlmicro.com](http://www.cmlmicro.com)

RF Building Blocks

CML's range of Radio Frequency (RF) products provides a selection of modular building blocks for implementation as part or all the 'wireless front-end' of a wide range of constant and non-constant envelope modulation systems.

The new RF Building Block range is designed to provide flexible, high-performance ICs required for HF/VHF/UHF professional radios, wireless data terminals, wireless microphones and marine and avionics radio systems.

Receivers

	Product	Description	RF/IF Range (MHz)	I/Q BW (MHz)	Input IP3 (dBm)	Noise Figure (dB)	Gain (dB(V/V))	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX970	RF/IF Quadrature Demodulator	20-300	10	-15	10	56	3.0-3.6	15	16-VQFN
Available Now	CMX972	RF/IF Quadrature Demodulator with PLL	20-300	10	-15	10	56	3.0-3.6	24	32-VQFN
Available Now	CMX992	RF/IF Quadrature Receiver with IF PLL	100-1000	15	11	61	61	3.0-3.6	52	48-VQFN
Available Now	CMX994A	Direct Conversion Receiver IC (Low Power or High-Performance options)	100-1000(A)	-9 (A)	5	63	63	3.0-3.6	42 (A)	40-VQFN
Available Now	CMX994E	Direct Conversion Receiver IC (Low Power or High-Performance options)	100-1000(E)	2 (E)	5	63	63	3.0-3.6	74 (E)	40-VQFN
Available Now	CMX994G	Direct Conversion Receiver IC (Low Power or High-Performance options)	30-1000(G)	-3 (G)	5	63	63	3.0-3.6	74 (E)	40-VQFN

Transmitters

	Product	Description	RF/IF Range (MHz)	I/Q BW (MHz)	Output IP3 (dBm)	Noise Floor (dB/Hz)	Output Power (dBm)	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX971	RF Quadrature Modulator	20 - 1000	25	14	-150	0 (PEP)	3.0-3.6	61	16-VQFN
Available Now	CMX993	RF Quadrature Modulator	30 - 1000	10	25	-155	3 (PEP)	3.0-3.6	95	48-VQFN
Available Now	CMX998	Cartesian Feedback Loop	30 - 1000	0.2		-155	3 (PEP)	3.0-3.6	135	64-VQFN

Transceivers

	Product	Description	RF/IF Range (MHz)	I/Q BW (MHz)	IP3 OP/IP (dBm)	Noise / Noise Figure (dbm/Hz) / (dB)	Power / Gain (dbm) / (dB(V/V))	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX973 *	Low Power RF Quadrature						3.0-3.6		32-VQFN
		TX	20 - 1000	25	14	-150	0 (PEP)		61	
		RX	20 - 300	10	-15	10dB	56 dB		15	
Available Now	CMX991	RF Quadrature Transceiver	10 - 1000	10	-15	10	56	3.0-3.6	24	48-VQFN
		TX		1	-	-142	-10		82	
		RX		1.4	-1	10	61dB		52	

RF Synthesizers

	Product	Description	RF/IF Range (MHz)	Normalised PN (dBc / Hz)	Max Fcomp (MHz)	PN at 25kHz (dBc/Hz)	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX940	High Performance Synthesizer (HPS)	49 - 2040	-225	120	3 (PEP)	3.0-3.6	23-64	40-LGA

Analogue Front End

	Product	Description	FDMA Systems	TDMA Systems	LD or I/Q Interface	Embedded Functions	Supply Voltage (V)	Typ. Current (mA)	Typ. Power Consumption (mW)	Package Type
Available Now	CMX983	Analogue Front End for Digital Mobile Radios	Universal	Universal	IQ	Channel Filters, Audioband Coder, A/D, ADCs, DACs, RAMDAC, GPIO and Spacers Amp, 2 Frac-N Synths	3.0-3.6	/	/	64-VQFN

Digital/Analogue Two-Way Radio Products

CML's two-way radio products address both the full baseband and communication requirements of digital/analogue PMR/LMR, military, trunked radio, marine and leisure radio systems. A wide range of voice, signalling and data processing ICs are offered supporting digital communication systems including DMR, dPMR, NXDN, ARIB STD, APCO P25 and TETRA.

DMR / dPMR / NXDN / ARIB / P25

	Product	Description	FDMA Systems	TDMA System	LD or I/Q Interface	Embedded Functions	Supply Voltage (V)	Typ. Current (mA)	Typ. Power Consumption (mW)	Package Type
Available Now	CMX7241/CMX7341	PMR/LMR Common Platform Processor	dPMR Mode 1/2/3 Analogue PMR ARIB STD-T98/T102	DMR Modes 1/2/3 APCO P25 Phase 1	LD or I/Q	Automatic Digital and Analogue detection, Air Interface Protocols: Physical and Data Link Layers, Complete Analogue Processing A/D, ADCs, DACs, RAMDAC, GPIO and System Clocks	3.0 - 3.6	4.4	/	48-VQFN 48-LQFP
Available Now	CMX7131/CMX7141	Multi-standard Digital PMR (dPMR) Processor	dPMR446, dPMR™ Mode 1/2/3 ARIB STD-T98, DCJ/ARIB STD-T102 NXDN™ Analogue/PMR	/	LD or I/Q	Air Interface Protocols: Physical and Data Link Layers, Audioband Coder, A/D, ADCs, DACs, RAMDAC, GPIO and System Clocks	3.0 - 3.6	4.4	/	48-VQFN/LQFP 64-VQFN/LQFP
Available Now	SCT3258TD/TDM	Analogue/DMR/dPMR processor	dPMR Analog PMR	DMR Modes 1/2	LD or I/Q	Automatic analogue or digital detection Full baseband processing AMBE+2TM or RALCV vocoder	Core 1.3 V IO 2.5 - 3.6 V	/	64mW DMR 38mW dPMR	QFN 64-pin
Available Now	SCT3268TD/TDM	Analogue/DMR/dPMR processor with embedded Application Processor	dPMR, Multi-mode Digital PMR/LMR with Analog Mode	DMR Modes 1/2	LD or I/Q	Automatic analogue or digital detection, Full baseband processing, AMBE+2TM or RALCV vocoder With embedded, high-performance ARM Cortex-M0 32-bit processor	Core 1.2 V Digital IO 2.5 V - 3.3 V	/	64mW DMR 38mW dPMR	BGA 144

Analogue Two-Way Radio

	Product	Description	FDMA Systems	TDMA System	LD or I/Q Interface	Embedded Functions	Supply Voltage (V)	Typ. Current (mA)	Typ. Power Consumption (mW)	Package Type
Available Now	CMX7031/CMX7041	Two-way Radio Processor	Analogue PMR/LMR, Marine VHF, Amateur AX.25	/	LD	Audio Processing, CTCSS, DCS, DTMF, Subcall, XTCS, Programmable Tones, ADCs, DACs, RAMDAC, GPIO, System Clocks	3.0 - 3.6	7	/	48-VQFN 48-LQFP
Available Now	CMX138A	Audio Scrambler and signalling Processor	PMR446, FRS, MURS, GMRS, Leisure Radio	/	LD	Audio Processing, CTCSS, DCS, Programmable Tones, ADC, DAC, RAMDAC, GPIO, System Clocks	3.0 - 3.6	9	/	28-TSSOP
Available Now	CMX148	PMR Audio and Data Processor	PMR446, FRS, MURS, GMRS, Leisure Radio	/	LD	Audio Processing, FFSK/MSK, DTMF, ADC, DAC, RAMDAC, GPIO, System Clocks	3.0 - 3.6	10	/	28-TSSOP

Analogue Scrambling

	Product	Description	FDMA Systems	TDMA System	LD or I/Q Interface	Embedded Functions	Supply Voltage (V)	Typ. Current (mA)	Typ. Power Consumption (mW)	Package Type
Available Now	CMX7158	Duplex Audio Scrambler	PMR and LMR	/	/	DTMF, Subcall	3.0 - 3.6	6.3	/	48-VQFN

2.4GHz Voice and Data

	Product	Description	FDMA Systems	TDMA System	LD or I/Q Interface	Embedded Functions	Supply Voltage (V)	Typ. Current (mA)	Typ. Power Consumption (mW)	Package Type
Available Now	SCT2400	2.4GHz Digital Voice and Data Transceiver	Proprietary Spread Spectrum	/	Complete 2.4GHz Transceiver	Vocoder, Wireless data modem, Protocol engine, System Controller	Core 3.3 V	10 (Bb/voice) 52 (Bb/voice) 64 (TX voice)	/	BGA 144

Digital Voice Products

CML's wireless data products address a wide range of communications and control applications, offering operation to custom, free format and packet data systems.

Voice Codecs

	Product	Description	Voice-data Scheme	Voice- band Codec	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX655D	Ultra-low Power Voice Codec (with embedded 1W Speaker Driver)	PCM (linear, A-law, μ-law)	/	3.0 - 3.6	6.3	24-VQFN

Vocoders

	Product	Description	Voice-data Scheme	Voice- band Codec	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX7261	Digital Voice Multi-transcoder	ADM, CVSD, PCM G.729A, G.711, G.723.1	Yes	3.0 - 3.6	52	64-VQFN
Available Now	CMX818/CMX638	Low-cost 2400bps Vocoder	RALCWI™	Yes	3.0 - 3.6	20	48-VQFN 48-LQFP
Available Now	CMX639	CVSD Voice Codec	CVSD	Yes	3.0 - 5.5	1.9	16-SOIC 24-TSSOP

Wireless Data Products

CML's wireless data products address a wide range of communications and control applications, offering operation to custom, free format and packet data systems.

Data Pumps

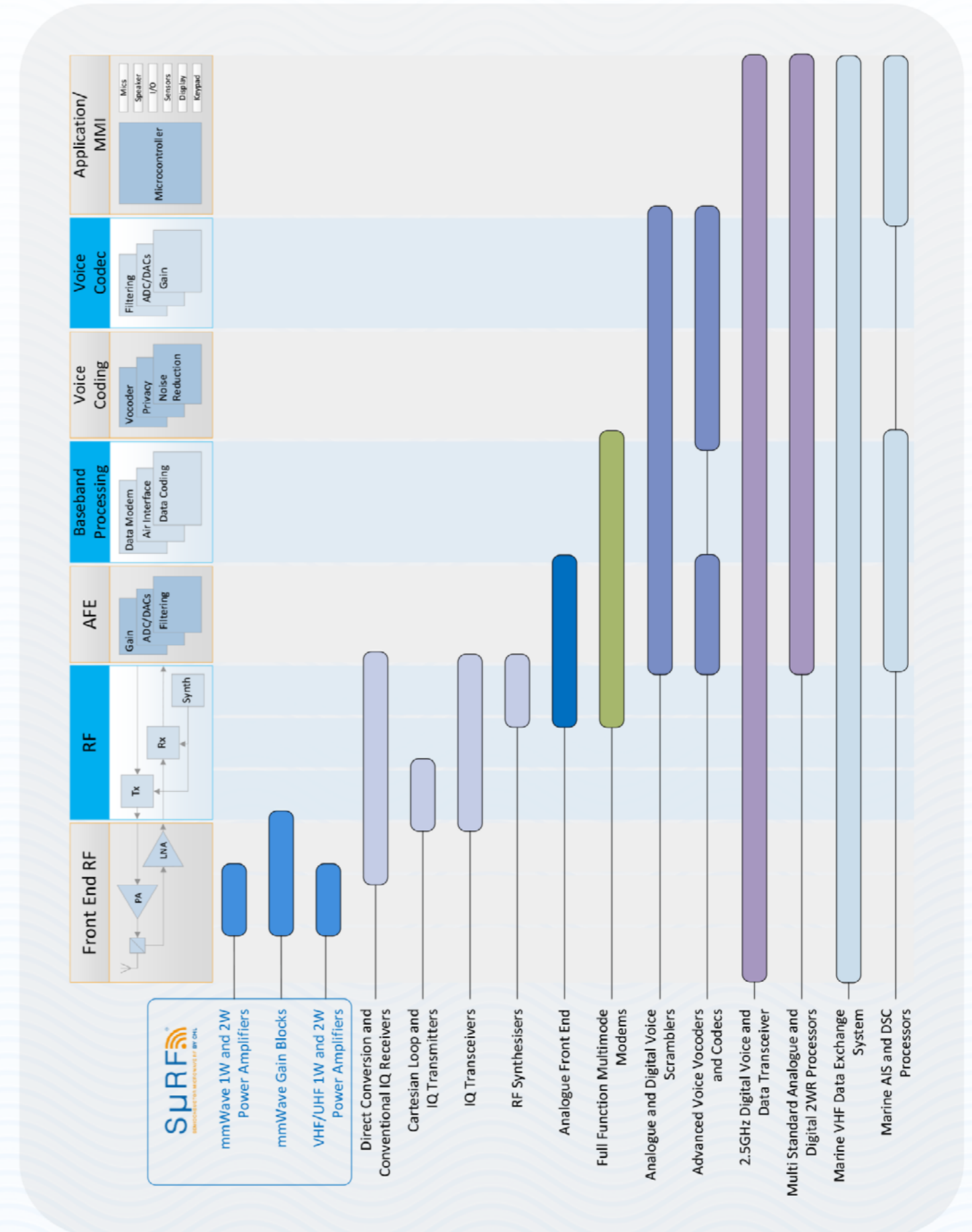
	Product	Description	Modulation Schemes	Data Range (kbps)	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX489A	1200/2400/4800 Baud FFSK/MSK Modem	FFSK/MSK	1200 / 2400 / 4800	3.0 - 5.5	4.5	20-SOIC 24-TSSOP
Available Now	CMX589A	Full-duplex GMSK Modem	GMSK/GFSK	<=200	3.0 - 5.5	4	16-SOIC 16-TSSOP

Packet Data Modems

	Product	Description	Modulation Schemes	Data Range (kbps)	Supply Voltage (V)	Typ. Current (mA)	Package Type
Available Now	CMX7364	Multi-mode High Performance Wireless Data Modem	GMSK/GFSK, 2/4/8/16 FSK, 4/16/32/64 QAM, V.23 Modem	up to 40kbps, up to 90kbps, up to 196kbps	2.7 - 3.6	27mA, 27mA, 35mA	64-VQFN
Available Now	CMX7164	Low-cost 2400bps Vocoder	GMSK/GFSK, 2/4/8/16 FSK, 4/16/32/64 QAM, V.23 Modem	GMSK <=19.2, 4 FSK <=20, 8 FSK <=40, QAM <=96	3.0 - 3.6	Rx 17.9, Tx 12.7	64-VQFN, 64-LQFP
Available Now	CMX7146	BPSK Wireless Data Modulator	BPSK/PRK/2PSK	0.6 - 9.6	3.0 - 3.6	7 (1200bps), 15 (9600bps)	48-VQFN
Available Now	CMX7143	Multi-mode Wireless Data Modem	FFSK/MSK, GMSK/GFSK, 4FSK	FFSK <=2.4, GMSK <=19.2, 4FSK <=20	3.0 - 3.6	Rx 11.7, Tx 15.7	48-VQFN 48-LQFP

Our Product Groups

CML Micro's breadth of products means wireless system design is easier with problem solving at every stage from RF building blocks to Voice & Data, helping our customers to stay mission critical.



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CML Micro is a world leader in the design, development and supply of mixed-signal, RF and microwave semiconductors for global communications markets.