

MICROWAVE SOLUTIONS

Analog, Digital & Mixed-Signal ICs, Modules, Subsystems & Instrumentation

**Communication, Test & Measurement &
Sensor Solutions, 2 to 86 GHz!**

Microwave Radio Links ◆

Point-to-Multi-Point Radios ◆

Test & Measurement Equipment ◆

Sensors ◆

VSAT ◆

Datasheet.Live

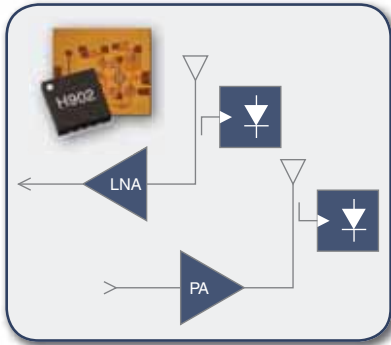
Microwave Solutions

Having built a strong reputation for technical innovation and product quality, Hittite Microwave has developed a broad portfolio of microwave & millimeterwave products to meet the demanding requirements of Communication, Test & Measurement and Sensor applications.



The Microwave Designer's Trusted Component Source!

Hittite Microwave Corporation offers the Industry's most complete standard and custom product lines of MMIC die and SMT components for Microwave and Millimeterwave applications, including solutions for: Transmit, Receive, LO Generation & LO Distribution Subsystems. Having built a strong reputation for technical innovation and product quality, Hittite Microwave has developed a broad portfolio of microwave & millimeterwave products to meet the demanding requirements of Communication, Test & Measurement and Sensor applications.

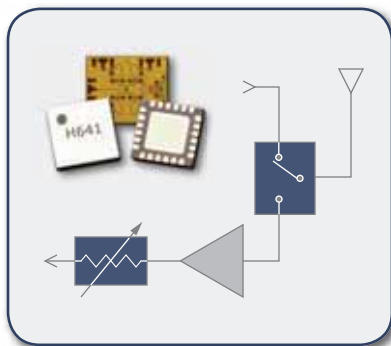


Amplification, Power Control & Power Detection

Hittite has offered Amplifiers for microwave & millimeterwave frequency bands since 1996 enabling designers to miniaturize and improve systems for Microwave Radio, VSAT, Test & Measurement and Sensor applications.

- **Operating Frequency: 6 to 86 GHz**
- **Gain as High as 29 dB**
- **Noise Figure as Low as 1.7 dB**
- **P1dB Up to +33 dBm / OIP3 Up to +43 dBm**
- **RMS, Log & SDLVA IC Detectors**

Pages 4 and 5 provide comprehensive details on Hittite's LNAs, Driver Amplifiers, Linear Amplifiers, Power Detectors and Variable Gain Amplifiers.

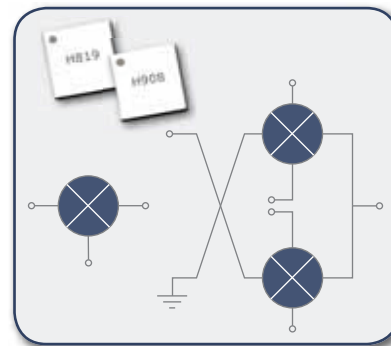


Control Devices

Hittite's Control Devices have been used in leading microwave and millimeterwave applications for Point-to-Point and Point-to-Multi-Point Radio, Test & Measurement and Military applications since 1992.

- **Insertion Loss as Low as 1.5 dB**
- **High Power Handling P1dB as High as +24 dBm**
- **Excellent Port to Port Isolation of Up to 50 dB**
- **Wideband Products Available for Design Flexibility**

Page 6 illustrates Hittite's leading Control Device components that include Broadband Switches, Attenuators and Phase Shifters.

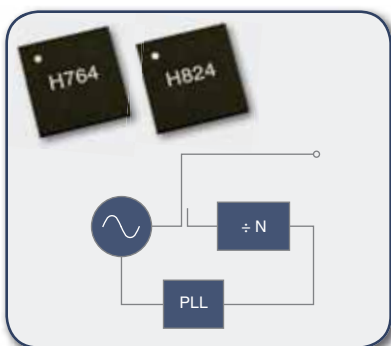


Frequency Conversion

Hittite pioneered the introduction of MMIC Mixers and Downconverters into microwave systems starting in 1992 by offering unique features for frequency conversion applications.

- **Operating Frequency: 6 to 90 GHz**
- **Conversion Gain Up to 14 dB, NF to 2.2 dB**
- **Direct Modulators & Demodulators**
- **Excellent LO to RF Isolation of 50 dB**

Page 7 provides a list of our Frequency Conversion products including Double-Balanced, IRMs, I/Q Up & Downconverters and Sub-Harmonic Mixers.



Frequency Generation

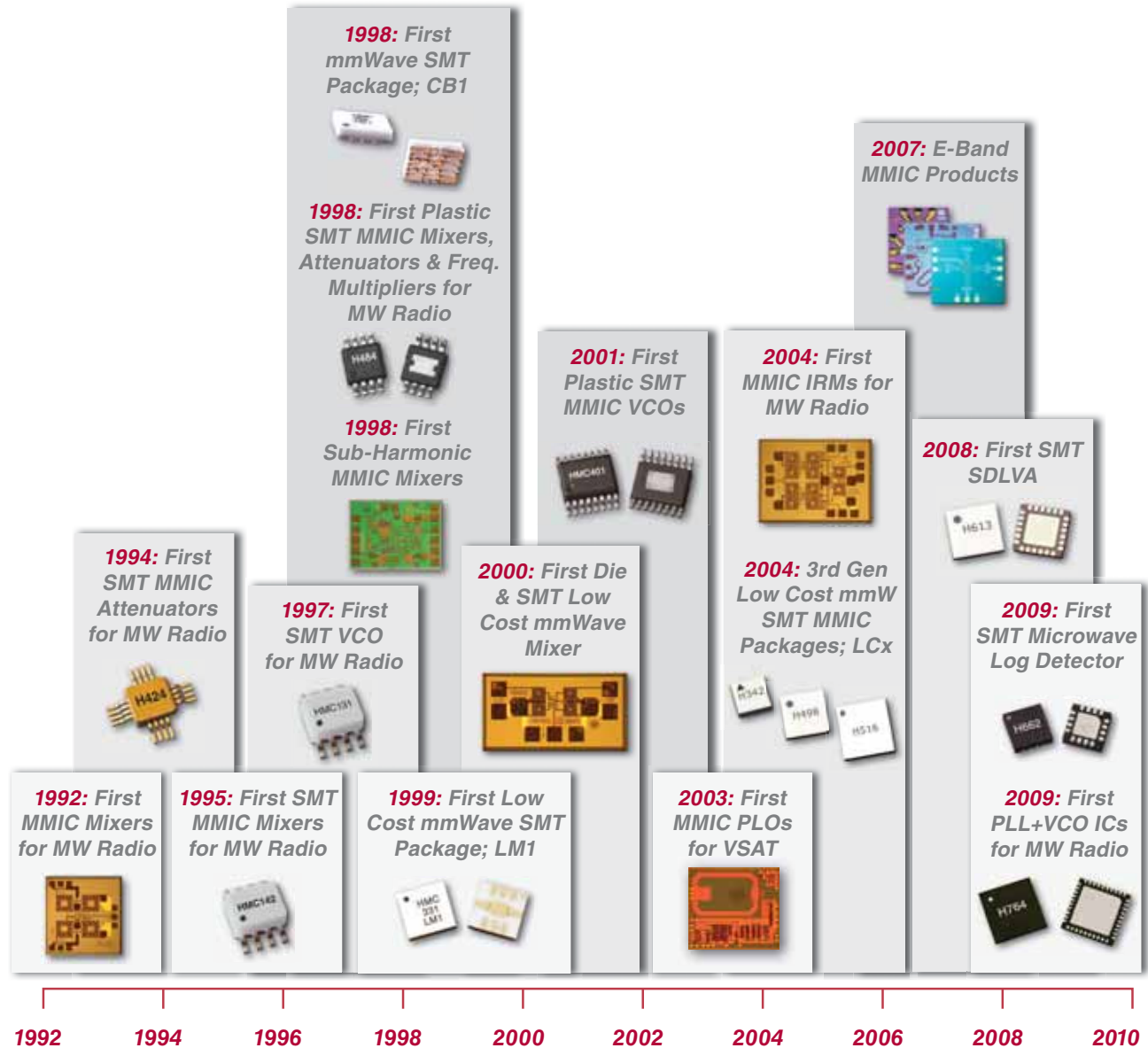
Hittite leads the way in MMIC VCOs, PLLs, PLLs + VCOs, Phase Frequency Detectors, Dividers and Multipliers for microwave and millimeterwave systems beginning in 1997.

- **Single Chip Integrated PLLs with VCOs**
- **High Output Power to 15 dBm**
- **Fractional and Integer Mode Synthesizer ICs**
- **Wideband VCOs**

Pages 8 and 9 detail our Frequency Generation product solutions and coverage for specific application bands.

25 Years of Microwave IC Component Innovation & Advancement!

Hittite has a rich history that spans 25 years of Microwave and Millimeterwave IC development for communications, sensors, and test/medical equipment. Our MMIC experience is broad and diverse and encompasses a wide variety of products for Transmit, Receive, LO Generation, and LO Distribution Subsystems. This guide provides an introduction to our microwave and millimeterwave product lines and individual products.



MICROWAVE SOLUTIONS

Our Products are Available in Die, SMT or Connectorized Package Formats!



Hittite's website contains full datasheets, application notes, as well as ordering information for our complete product offering of over 825 products across 27 product lines.

Low Noise Amplifiers, 5 to 18 GHz!



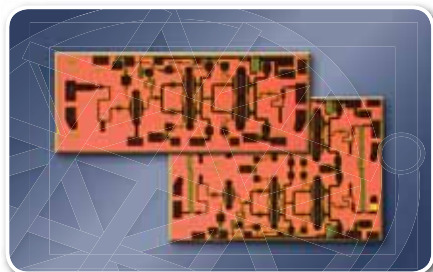
Features

- ◆ Low Noise Figure as Low as 1.6 dB
- ◆ Up to 20 dB High Gain
- ◆ Up to 16 dBm High P1dB Output Power
- ◆ Up to +28 dBm Output IP3
- ◆ 3.5V Single Supply & 50 Ω Matched I/Os

A Selection of In-Stock LNAs

	Part Number	Frequency (GHz)	Gain (dB)	OIP3 (dBm)	NF (dB)	P1dB (dBm)	Bias Supply	ECCN Code
NEW!	HMC902	5 - 10	20	28	1.6	16	+3.5V @ 80mA	EAR99
NEW!	HMC902LP3E	5 - 10	19	28	1.8	16	+3.5V @ 80mA	EAR99
NEW!	HMC903	6 - 18	19	27	1.6	15	+3.5V @ 90mA	EAR99
NEW!	HMC903LP3E	6 - 17	18	25	1.7	14	+3.5V @ 80mA	EAR99

1/2 & 1 Watt Power Amplifiers, 24 to 29.5 GHz!



Features

- ◆ +30.5 dBm Saturated Output Power
- ◆ +40 dBm High Output IP3
- ◆ Up to 27 dB High Gain
- ◆ +6V DC Supply
- ◆ No External Matching Required

A Selection of In-Stock Power Amplifiers

	Part Number	Frequency (GHz)	Gain (dB)	OIP3 (dBm)	NF (dB)	P1dB (dBm)	Bias Supply	ECCN Code
NEW!	HMC863	24 - 29.5	22	39	-	26.5	+6V @ 375mA	EAR99
NEW!	HMC864	24 - 29.5	27	40	-	29	+6V @ 750mA	3A001.b.2.c

HMC694 & HMC694LP4E Variable Gain Amplifiers, 6 to 17 GHz!



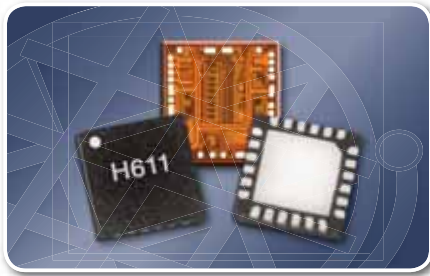
Features

- ◆ Wide Gain Control Range: 23 dB
- ◆ Single Control Voltage
- ◆ Output IP3 @ Maximum Gain: +30 dBm
- ◆ Output P1dB: +22 dBm
- ◆ No External Matching Required

A Selection of In-Stock Analog Variable Gain Amplifiers

	Part Number	Frequency (GHz)	Gain Control Range (dB)	NF (dB)	OIP3 (dBm)	P1dB (dBm)	Bias Supply	ECCN Code
	HMC694	6 - 17	1 to 24	5	30	22	+5V @ 170mA	EAR99
	HMC694LP4E	6 - 17	0 to 23	6	30	22	+5V @ 175mA	EAR99

HMC611 & HMC611LP4E Logarithmic Detector Controllers, 0.001 to 10.0 GHz!



Features

- ◆ Wide Dynamic Range: Up to 63 dB
- ◆ High Accuracy: ± 1 dB with 54 dB Range up to 8 GHz
- ◆ +5V Supply Voltage
- ◆ Excellent Stability Over Temperature
- ◆ Buffered Temperature Sensor Output

A Selection of In-Stock Logarithmic Detector Controllers

Part Number	Frequency (GHz)	Dynamic Range (dB)	RSSI Slope (mV / dB)	RF Threshold Level (dBm)	Bias Supply	ECCN Code
HMC611	0.001 - 10	69 \pm 3	-25	-65	+5V @ 103mA	EAR99
HMC611LP4E	0.001 - 10	69 \pm 3	-25	-65	+5V @ 106mA	EAR99
NEW! HMC662LP3E	8 - 30	54 \pm 3	13.3	-55	+3.3V @ 88mA	EAR99

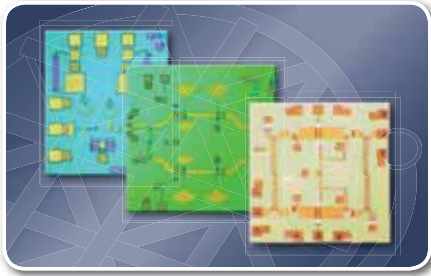
MICROWAVE & MILLIMETERWAVE RADIO, 7 to 23 GHz

Function	7 / 8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz
Low Noise Amplifier	HMC564	HMC516LC5	HMC516LC5	HMC504LC4B	HMC517LC4	HMC341LC3B
	HMC564LC4	HMC564	HMC565	HMC516LC5	HMC519LC4	HMC504LC4B
	HMC902LP3E	HMC564LC4	HMC565LC5	HMC565	HMC565	HMC517LC4
		HMC565	HMC903LP3E	HMC565LC5	HMC565LC5	HMC519
		HMC565LC5		HMC903LP3E	HMC751LC4	HMC519LC4
		HMC903LP3E				HMC751LC4
						HMC752LC4
Driver Amplifier	HMC441LP3E	HMC441LP3E	HMC441LC3B	HMC441LC3B	HMC383LC4	HMC383LC4
	HMC451LC3	HMC451LC3	HMC451LC3	HMC451LC3	HMC442LC3B	HMC442LC3B
	HMC516LC5	HMC451LP3E	HMC451LP3E	HMC451LP3E	HMC451LP3E	HMC498LC4
	HMC633LC4	HMC516LC5	HMC490LP5E	HMC490LP5E	HMC498LC4	HMC635
	HMC634LC4	HMC633LC4	HMC633LC4	HMC633LC4	HMC634LC4	HMC635LC4
	HMC634LC4	HMC634LC4	HMC634LC4	HMC634LC4	HMC635LC4	
Power Amplifier	HMC486LP5E	HMC487LP5E	HMC489LP5E	HMC489LP5E	HMC756	HMC756
	HMC590	HMC592	HMC592	HMC-APH462	HMC757	HMC757
	HMC590LP5E	HMC608LC4			HMC-APH478	HMC-APH462
	HMC591					HMC-APH518
	HMC591LP5E					
Power Detectors	HMC611					
	HMC611LP3E					
VGA: Analog	HMC694	HMC694	HMC694	HMC694	HMC694	
	HMC694LP4E	HMC694LP4E	HMC694LP4E	HMC694LP4E	HMC694LP4E	

MICROWAVE & MILLIMETERWAVE RADIO, 26 to 86 GHz

Function	26 / 28 GHz	32 / 38 GHz	32 - 43 GHz	44 - 66 GHz	71 - 86 GHz
Low Noise Amplifier	HMC341LC3B	HMC263	HMC-ALH376	HMC-ALH382	HMC-ALH459
	HMC517LC4	HMC566			HMC-ALH509
	HMC519LC4	HMC635			
	HMC635	HMC693			
	HMC752LC4	HMC-ALH369			
Driver Amplifier	HMC383LC4	HMC383LC4	HMC-APH403	HMC-ABH209	HMC-AUH317
	HMC499LC4	HMC635LC4	HMC-APH473	HMC-ABH241	HMC-AUH318
	HMC635LC4		HMC-APH510	HMC-ABH403	HMC-AUH320
Power Amplifier	HMC499LC4	HMC693	HMC693	HMC-ABH209	HMC-ALH508
	HMC693	HMC906	HMC-ABH264	HMC-ABH241	HMC-AUH317
	HMC863	HMC-ABH264	HMC-APH403	HMC-ABH403	HMC-AUH318
	HMC864	HMC-APH403	HMC-APH473		HMC-AUH320
	HMC906	HMC-APH473	HMC-APH510		
	HMC-APH460	HMC-APH510	HMC-AUH256		
	HMC-APH462	HMC-APH596			
	HMC-APH596				
	HMC-APH608				
Power Detectors	HMC662LP3E				

HMC-VVD106 Analog Voltage Variable Attenuator, 36 to 50 GHz!



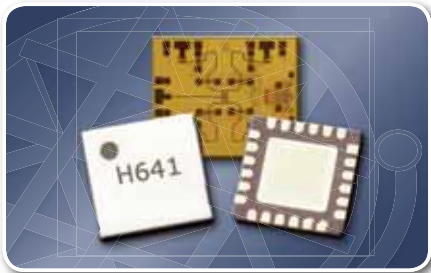
Features

- ◆ **Low Insertion Loss: 1.5 dB**
- ◆ **Wide Dynamic Range: 22 dB**
- ◆ **Balanced Topology**
- ◆ **High Input IP3: +17 dBm**
- ◆ **Single Control Voltage: 0 to +4V**

A Selection of In-Stock Voltage Variable Attenuators

Part Number	Frequency (GHz)	Insertion Loss (dB)	Attenuation Range (dB)	IIP3 (dBm)	Control Input (Vdc)	ECCN Code
HMC-VVD102	17 - 27	1.5	0 to 22	17	-4V to +4V	5A991.h
HMC-VVD106	36 - 50	1.5	0 to 22	17	0 to +4V	5A991.h
HMC-VVD104	70 - 86	2	0 to 14	-	-5V to +5V	5A991.h

HMC641 & HMC641LC4 SP4T Switches, DC to 20 GHz!



Features

- ◆ **High Isolation: 42 dB @ 12 GHz**
- ◆ **Low Insertion Loss: 2.1 dB @ 12 GHz**
- ◆ **High P1dB up to +24 dBm**
- ◆ **Integrated 2:4 TTL Decoder**
- ◆ **0 / -5V Control Input**

A Selection of In-Stock SP4T Switches

Part Number	Frequency (GHz)	Insertion Loss (dB)	Isolation (dB)	Input P1dB (dBm)	Control Input (Vdc)	ECCN Code
HMC641	DC - 18	2.1	42	24	0 / -5V	EAR99
HMC641LC4	DC - 20	2.1	42	23	0 / -5V	EAR99

MICROWAVE & MILLIMETERWAVE RADIO, 7 to 23 GHz

Function	7 / 8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz
Attenuator: Analog	HMC346LP3E HMC812LC4	HMC346LP3E HMC812LC4	HMC346LP3E HMC812LC4	HMC346LC3B HMC812LC4	HMC346LC3B HMC-VVD102	HMC812LC4 HMC-VVD102
Switch	HMC547LP3E HMC641	HMC607 HMC641	HMC547LP3E HMC641	HMC607 HMC641	HMC547LP3E HMC641	

MICROWAVE & MILLIMETERWAVE RADIO, 26 to 86 GHz

Function	26 / 28 GHz	32 / 38 GHz	32 - 43 GHz	44 - 66 GHz	71 - 86 GHz
Attenuator: Analog	HMC712LP3CE HMC812LC4 HMC-VVD102	HMC-VVD106	HMC-VVD106	HMC-VVD106	HMC-VVD104
Switch				HMC-SDD112	HMC-SDD112

I/Q Upconverters, 11 to 23.6 GHz & I/Q Downconverters, 9 to 24 GHz!



Features

- ◆ Up to 15 dB Conversion Gain
- ◆ Excellent Sideband Rejection to -35 dBc
- ◆ +35 dBm High Output IP3
- ◆ Excellent Image Rejection to 25 dB
- ◆ Low Noise Figure of 2.2 dB

A Selection of In-Stock I/Q Transmitters

	Part Number	RF / LO Frequency (GHz)	IF Frequency (GHz)	Conversion Gain (dB)	Sideband Rejection (dBc)	OIP3 (dBm)	ECCN Code
NEW!	HMC709LC5	11 - 17	DC - 3.75	15	-20	26	EAR99
NEW!	HMC819LC5	17.7 - 23.6	DC - 3.5	15	-35	35	EAR99

A Selection of In-Stock I/Q Receivers

	Part Number	RF / LO Frequency (GHz)	IF Frequency (GHz)	Conversion Gain (dB)	Noise Figure (dB)	Image Rejection (dB)	IIP3 (dBm)	ECCN Code
NEW!	HMC908LC5	9 - 12	DC - 3.5	11	2.2	25	2	EAR99
NEW!	HMC904LC5	17 - 24	DC - 3.5	12	2.2	30	0	EAR99

MICROWAVE & MILLIMETERWAVE RADIO, 7 to 23 GHz

Function	7 / 8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz
I/Q Downconverter / Rx	HMC567LC5	HMC908LC5	HMC869LC5	HMC709LC5	HMC570	HMC571
I/Q Upconverter / Tx				HMC869LC5	HMC570LC5 HMC710LC5 HMC904LC5	HMC571LC5 HMC815LC5 HMC904LC5
I/Q Mixer / IRM	HMC520LC4 HMC525LC4 HMC620 HMC620LC4	HMC521LC4 HMC527LC4	HMC521LC4 HMC527LC4	HMC522LC4 HMC528LC4	HMC523 HMC523LC4	HMC523 HMC523LC4 HMC524 HMC-MDB172
Mixer: Fundamental	HMC129LC4 HMC144LC4 HMC219MS8E HMC220MS8E HMC558 HMC558LC3B HMC663LC3	HMC144LC4 HMC411MS8GE HMC412MS8GE HMC553 HMC553LC3B HMC558 HMC558LC3B HMC663LC3	HMC144LC4 HMC411MS8GE HMC412MS8GE HMC553 HMC553LC3B HMC558 HMC558LC3B	HMC144LC4 HMC260LC3B HMC412MS8GE HMC554 HMC554LC3B HMC558 HMC558LC3B	HMC144LC4 HMC260LC3B HMC292LC3B HMC554 HMC554LC3B	HMC260LC3B HMC292LC3B
Mixer: Sub-Harmonic				HMC258LM3	HMC258LC3B HMC258LM3 HMC337	HMC264LC3B HMC338LC3B

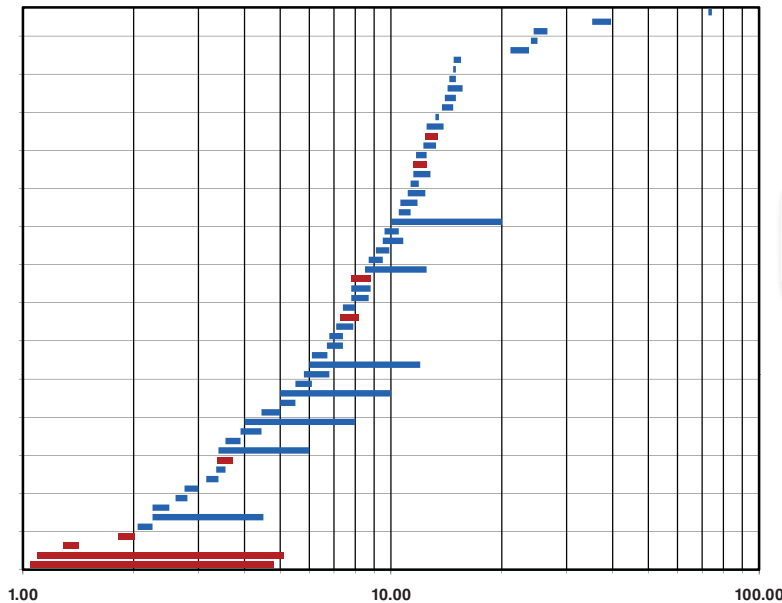
MICROWAVE & MILLIMETERWAVE RADIO, 26 to 86 GHz

Function	26 / 28 GHz	32 / 38 GHz	32 - 43 GHz	44 - 66 GHz	71 - 86 GHz
I/Q Receiver	HMC572 HMC572LC5				
I/Q Mixer / IRM	HMC524 HMC524LC3B HMC-MDB172	HMC404 HMC555 HMC556	HMC-MDB171 HMC-MDB172	HMC-MDB171 HMC-MDB207	
Mixer: Fundamental	HMC292LC3B HMC329LC3B HMC557 HMC557LC4	HMC294 HMC329LM3 HMC560 HMC560LM3	HMC560 HMC560LM3	HMC-MDB169	
Mixer: Sub-Harmonic	HMC264LC3B HMC265LM3 HMC338LC3B HMC798LC4	HMC338 HMC339 HMC798LC4		HMC-MDB218	

Frequency Generation - IC, Module, Subsystem & Instrumentation Solutions to 80 GHz

Hittite Microwave offers standard and custom Frequency Generation products from DC to 80 GHz. Our MMIC VCOs integrate a Resonator, Negative Resistance Circuit & Tuning Varactor and/or Dividers and Buffer Amplifiers. The accuracy & repeatability of MMIC wafer processing eliminates all tuning at our factory and yours.

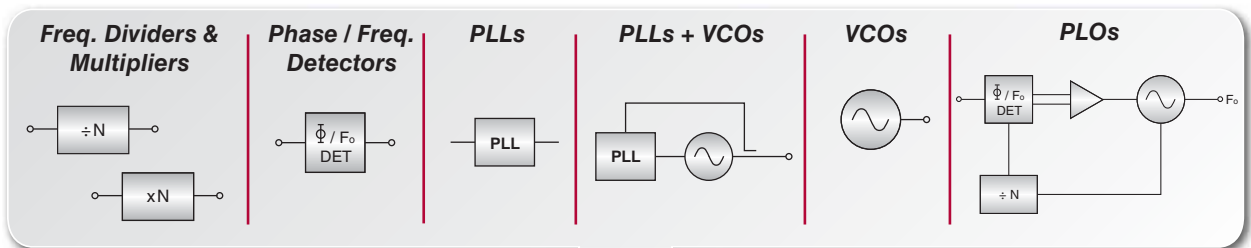
MMIC VCO & PLL + VCO IC Frequency Coverage



Product Key

■ VCO
■ PLL + VCO

MICROWAVE SOLUTIONS



Full Service Frequency Generation Solutions Standard & Custom Products



PLLs with Integrated VCOs Cover 665 MHz to 13.4 GHz!



Features

- ◆ 10 kHz Closed Loop SSB Phase Noise:
 - 120 dBc/Hz - HMC824LP6CE @ 870 MHz
 - 102 dBc/Hz - HMC764LP6CE @ 7.8 GHz
- ◆ Fully Integrated LO Solution
Just Add Crystal Reference & Loop Filter
- ◆ 6x6 mm QFN Package

12 New In-Stock Low Phase Noise PLLs with Integrated VCOs

Part Number	Frequency (GHz)	Closed Loop SSB Phase Noise @10kHz Offset	Open Loop VCO Phase Noise @1MHz Offset	Pout (dBm)	RMS Jitter Fractional Mode (fs)	Integrated PN Fractional Mode (deg rms)	ECCN Code
HMC822LP6CE	0.665 - 3.30	-115 dBc/Hz	-142 dBc/Hz	+10	190	0.10	3A001.a.11.b
HMC824LP6CE	0.78 - 0.87	-120 dBc/Hz	-147 dBc/Hz	+12	190	0.05	3A001.a.11.b
HMC821LP6CE	0.86 - 4.16	-113 dBc/Hz	-140 dBc/Hz	+10	190	0.12	3A001.a.11.b
HMC826LP6CE	0.99 - 1.105	-118 dBc/Hz	-145 dBc/Hz	+10	190	0.07	3A001.a.11.b
HMC820LP6CE	1.095 - 5.10	-110 dBc/Hz	-139 dBc/Hz	+10	190	0.17	3A001.a.11.b
HMC828LP6CE	1.285 - 1.415	-116 dBc/Hz	-142 dBc/Hz	+10	190	0.10	3A001.a.11.b
HMC831LP6CE	1.815 - 2.01	-112 dBc/Hz	-141 dBc/Hz	+9	190	0.13	3A001.a.11.b
HMC836LP6CE	3.365 - 3.705	-107 dBc/Hz	-135 dBc/Hz	0	190	0.25	3A001.a.11.b
HMC764LP6CE	7.3 - 8.2	-102 dBc/Hz	-140 dBc/Hz	+15	196	0.55	3A001.a.11.b
HMC765LP6CE	7.8 - 8.8	-102 dBc/Hz	-139 dBc/Hz	+13	193	0.58	3A001.a.11.b
HMC783LP6CE	11.5 - 12.5	-100 dBc/Hz	-134 dBc/Hz	+11	181	0.78	3A001.a.11.b
HMC807LP6CE	12.4 - 13.4	-98 dBc/Hz	-134 dBc/Hz	+8	175	0.81	3A001.a.11.b

MICROWAVE & MILLIMETERWAVE RADIO, 7 to 23 GHz

Function	7 / 8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz
Divide-by-2	HMC361S8GE	HMC364S8GE	HMC492LP3E	HMC492LP3E	HMC492LP3E	
Divide-by-4	HMC362S8GE	HMC365S8GE	HMC493LP3E	HMC493LP3E	HMC493LP3E	HMC447LC3
Divide-by-8	HMC363S8GE	HMC363S8GE	HMC494LP4E	HMC494LP4E	HMC494LP4E	
Multiplier: Active X2	HMC368LP4E HMC575LP4E HMC561LP3E	HMC368LP4E HMC573LC3B HMC561LP3E HMC-XDB112	HMC368LP4E HMC573LC3B HMC561LP3E HMC-XDB112	HMC368LP4E HMC573LC3B HMC561LP3E HMC-XDB112	HMC448LC3B HMC576 HMC576LC3B HMC814LC3B	HMC448LC3B HMC576 HMC576LC3B HMC814LC3B
Multiplier: Active X4		HMC443LP4E	HMC695LP4E	HMC370LP4E HMC-XDH158		
Multiplier: Passive X2	HMC189AMS8E	HMC189AMS8E	HMC204MS8GE	HMC204MS8GE	HMC204MS8GE	HMC205
PLLs:	HMC440QS16GE HMC698LP5E HMC699LP5E HMC700LP4E HMC701LP6CE		HMC702LP6CE			
PLLs + VCOs	Above Table	Above Table	Above Table			
VCOs & PLOs: **Requires X2 or X4	HMC505LP4E HMC506LP4E HMC507LP5E HMC508LP5E HMC509LP5E HMC532LP4E	HMC513LP4E HMC515LP5E HMC534LP4E HMC582LP5E HMC734LP5E HMC735LP5E	HMC512LP5E HMC513LP5E HMC514LP5E HMC515LP5E HMC529LP5E HMC584LP5E	HMC529LP4E HMC531LP5E HMC535LP5E HMC632LP5E HMC736LP4E HMC737LP4E	HMC508LP5E** HMC509LP5E** HMC510LP5E** HMC511LP5E** HMC512LP5E** HMC513LP5E**	HMC514LP5E** HMC515LP5E** HMC582LP5E** HMC583LP5E** HMC738LP4E HMC739LP4E

MICROWAVE & MILLIMETERWAVE RADIO, 26 to 86 GHz

Function	26 / 28 GHz	32 / 38 GHz	32 - 43 GHz	44 - 66 GHz	71 - 86 GHz
Divide-by-4	HMC447LC3				
Multiplier: Active x2	HMC448LC3B HMC577LC4B HMC578LC3B HMC598 HMC814LC3B	HMC449LC3B HMC578LC3B HMC579 HMC598	HMC598	HMC598	
Multiplier: Active X4				HMC-XDH158	
Multiplier: Passive x2 / x3	HMC331	HMC331			
VCOs & PLOs: **Requires X2 or X4	HMC515LP5E** HMC531LP5E** HMC739LP4E	HMC510LP5E** HMC511LP5E** HMC512LP5E**	HMC510LP5E** HMC511LP5E** HMC512LP5E**		

Chipsets for 6 to 42 GHz Microwave Radio Backhaul

Product Key

6 to 15 GHz
18 to 23 GHz
26 GHz Only

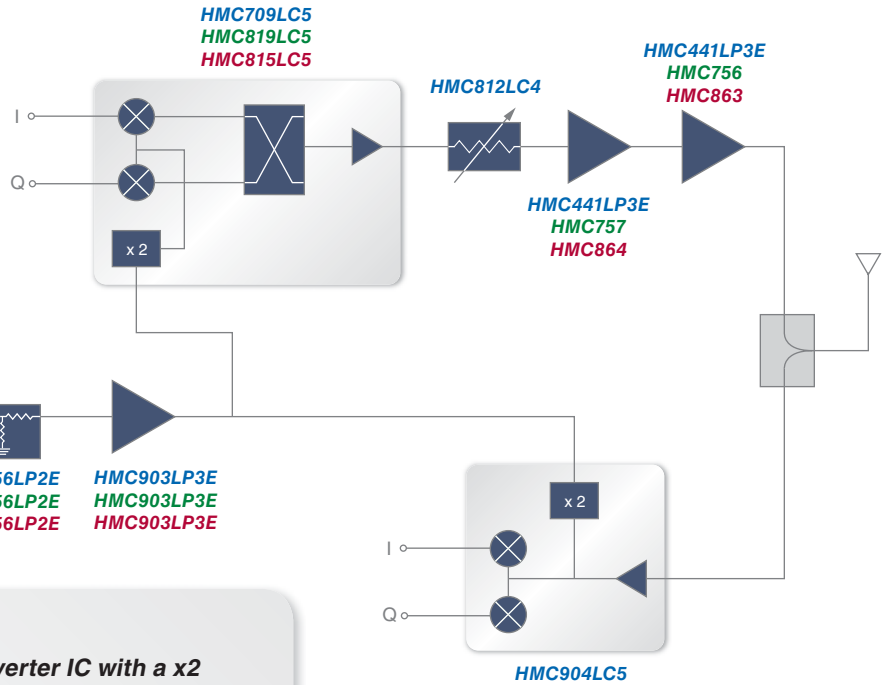
HMC764LP6CE
HMC783LP6CE
HMC807LP6CE



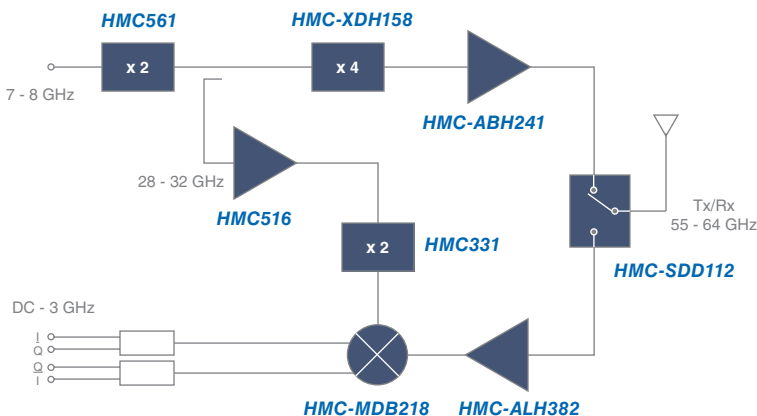
HMC656LP2E HMC903LP3E
HMC656LP2E HMC903LP3E
HMC656LP2E HMC903LP3E

FEATURES:

- ◆ Integrated I/Q TX Upconverter IC with a x2 LO Buffer & a High Linearity Driver Amplifier
- ◆ High Linearity 17 - 24 GHz Power Amplifier with 40 dBm OIP3 & 32 dBm Output Power
- ◆ Low Noise Image Rejection Downconverter IC with an Integrated x2 LO Buffer
- ◆ Very Low Phase Noise PLL IC with an Integrated VCO



Sub-Harmonic Option for 60 GHz Chipset

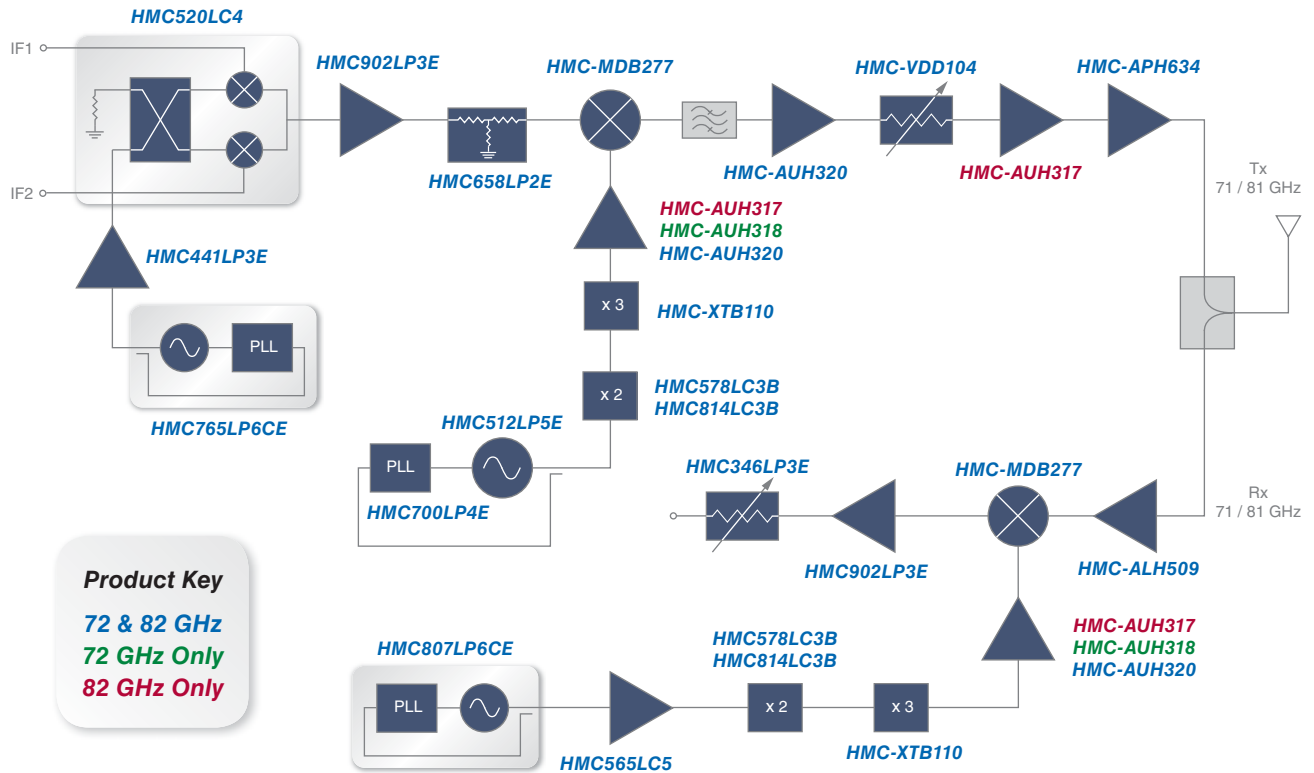


APPLICATIONS:

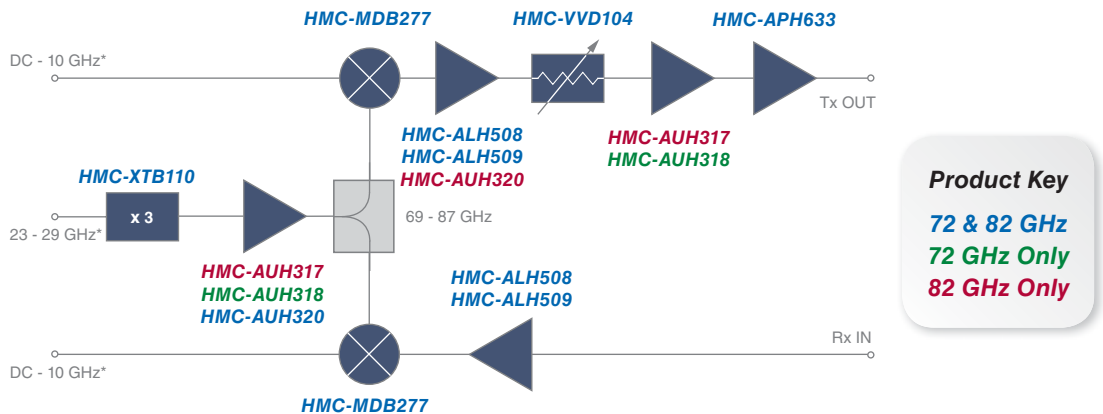
- ◆ Short Haul High Capacity Links
- ◆ Picocell Mobile Phone Links
- ◆ Network Backbone & Branch Links
- ◆ HDTV Wireless Broadcasting

Typical Microwave / Millimeterwave application is illustrated.
See the full product listing for alternatives to the select HMC products shown in each functional block.

70 / 80 GHz E-Band Radio Chipset



72 / 82 GHz Tx/Rx Chipset for High Capacity Communication Links



Typical Microwave / Millimeterwave application is illustrated.
 See the full product listing for alternatives to the select HMC products shown in each functional block.

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