



Infineon's solutions for multicopters

Introducing a new cost effective system solution to ensure excellent user experience
Fly longer, safer & with more value-adding functionalities

www.infineon.com/multicopter

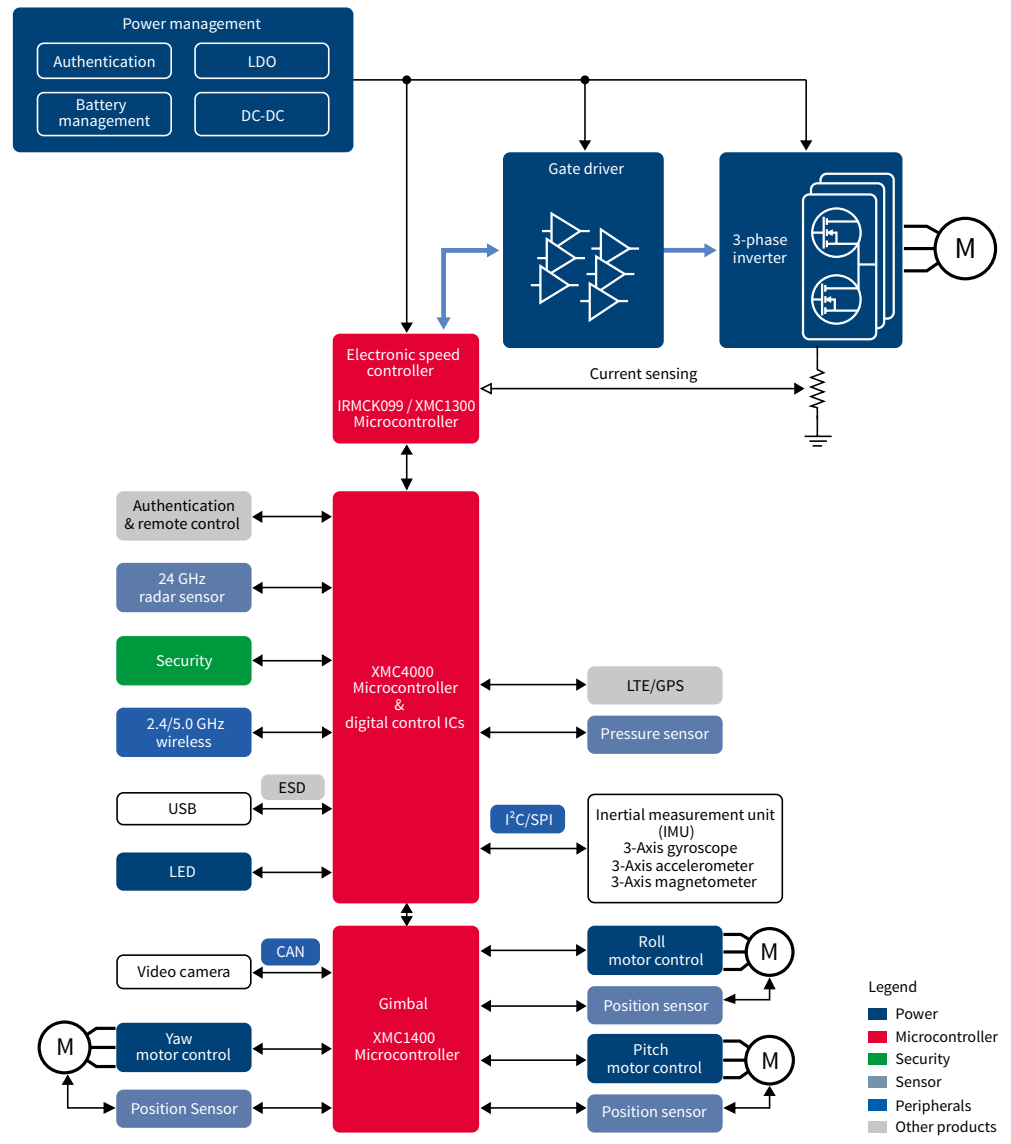


Industry-leading full system multicopter solutions

Commercial multicopters have come a long way in recent years, evolving from toys to coastal and event mapping sophisticated programmable aircraft. This provides challenges and opportunities for multicopter manufacturers.

Infinion produces cost effective system solutions for this rapidly growing market thereby ensuring an excellent flight experience and simultaneously meeting the requirements of the end user such as lighter weight, longer flying time, safety, reliability, etc.

Benefits	Offer
Development effort and cost reduction	<ul style="list-style-type: none"> > With no or little experience in motor control customers can implement the iMOTION™ motor control IC and take flight > Project development effort can be reduced by 30 percent by using reference designs and the DAVE™ platform for microcontroller programming
Security and authentication	<ul style="list-style-type: none"> > Enables authentication of components connected to the system. Safety is secured and product liability protected > Brand protection and a secured strong identity are provided by state-of-the-art security products which are easy to integrate
Accuracy and easy control	<ul style="list-style-type: none"> > Multifunctional sensors guarantee an easy, stable, smooth, and accurate control of the multicopter > Closed loop control of gimbal motor and sensors enhance the stability of the camera and data transmission when recording videos
Lighter	<ul style="list-style-type: none"> > The highly efficient components and an effective flight control make the multicopter lighter resulting in longer flight time
Collision avoidance	<ul style="list-style-type: none"> > The 24GHz radar can be used to measure the presence of objects, range, and speed/velocity! And it determines proximity as well as an object's position
Broad portfolio	<ul style="list-style-type: none"> > Infineon provides a comprehensive portfolio of semiconductor components for multicopters

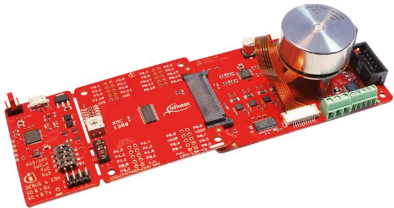
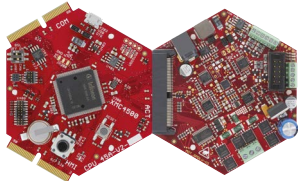
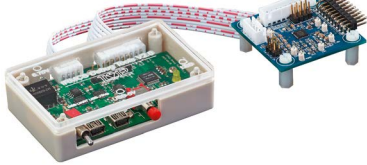
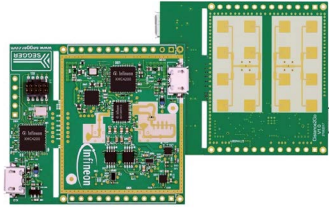


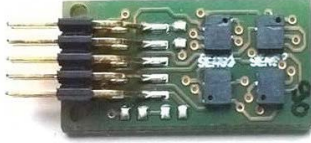



Reliable and durable solutions for multicopters

Flight control					ESC		
Microcontroller	Sensor	DC-DC module	LDO	Low noise amplifier (LNA)	Microcontroller	Sensor	Intelligent power module
<ul style="list-style-type: none"> > XMC4000 family > XMC1000 family > AURIX™ 	<ul style="list-style-type: none"> > Pressure sensor: DPS310 > 24 GHz radar sensor: BGT24MR2, BGT24MTR11/BGT24MTR12/BGT24LTR11 > Current sensor: TLI4970 	<ul style="list-style-type: none"> > IFX90121ELV50 > IFX91041EJV33 > IFX91041EJV50 	<ul style="list-style-type: none"> > IFX1117ME > IFX54441EJV > IFX1763XEJV33 	<ul style="list-style-type: none"> > LTE: BGA7H, BGA7M, BGA7L > GPS: BGA524N6, BGA824N6 > Wi-Fi: BFP842ESD, BFR840L3RHESD, BFR843L3, etc. 	<ul style="list-style-type: none"> > XMC1300 family > iMOTION™ > IRMCK099 	<ul style="list-style-type: none"> > Hall sensor: TLI4961, TLV4961 > Angle sensor: TLI5012B, TLE5009 	<ul style="list-style-type: none"> > IRSM005 – 800MH > IRSM836 – 084MA
Security	Accessory authentication	Joystick	Interface protection diodes	LED driver	MOSFET gate driver	Dual n-channel power MOSFET	Low voltage MOSFETs
<ul style="list-style-type: none"> > OPTIGA™ Trust E SLS32AIA > OPTIGA™ Trust P SLJ52ACA > OPTIGA™ TPM SLB96XX 	<ul style="list-style-type: none"> > OPTIGA™ Trust SLS10ERE > OPTIGA™ Trust B SLE95250 	<ul style="list-style-type: none"> > 3D magnetic sensor: TLV493D 	<ul style="list-style-type: none"> > ESD102 series 	<ul style="list-style-type: none"> > BCR450 > BCR321U > BCR421U 	<ul style="list-style-type: none"> > IRS2301S > 6EDL04N02P > IRS23365 > PX3517 	<ul style="list-style-type: none"> > IR3742, etc. > BSC0925ND, etc. 	<ul style="list-style-type: none"> > OptiMOS™ 5 series > StrongIRFET™ series
Charger			Battery management				
High voltage MOSFETs	Low voltage MOSFETs	Stand alone PWM controller	Authentication IC	Cell balancing	Low voltage MOSFETs		
<ul style="list-style-type: none"> > 600 V-650 V CoolMOS™ CE > 600 V CoolMOS™ P7 (standard grade) 	<ul style="list-style-type: none"> > OptiMOS™ 5 40 V-80 V in TO-220, SuperSO8 > StrongIRFET™ 40 V-75 V 	<ul style="list-style-type: none"> > ICE2QS03G 	<ul style="list-style-type: none"> > OPTIGA™ Trust B SLE95250 	<ul style="list-style-type: none"> > OptiMOS™ 30 V in SSO8, S308, DirectFET™ > StrongIRFET™ 30 V 	<ul style="list-style-type: none"> > OptiMOS™ 5 in SuperSO8, S308, DirectFET™ > StrongIRFET™ 40 V-80 V 		
Gimbal control							
Microcontroller	Angle sensor	LDO	CAN transceiver	Low voltage MOSFETs	Dual n-channel power MOSFET	MOSFET gate driver	
<ul style="list-style-type: none"> > XMC1400 family 	<ul style="list-style-type: none"> > TLI5012B > TLE5009 	<ul style="list-style-type: none"> > IFX1117ME > IFX54441EJV > IFX1763XEJV33 	<ul style="list-style-type: none"> > HS CAN IFX1050G > IFX1050GVIO 	<ul style="list-style-type: none"> > OptiMOS™ 5 25 V-30 V > StrongIRFET™ 25 V-30 V 	<ul style="list-style-type: none"> > IRFHM8363TRPBF, etc. 	<ul style="list-style-type: none"> > IR2101STRPBF, etc. 	

Demoboards

To shorten customer development cycle time and cost we offer a wide range of application kits:

Microcontrollers			24 GHz radar sensor
XMC1000 motor control application kit	XMC4000 motor control application kit	iMOTION™ modular application design kit (EVAL-M1-099M)	DEMO DISTANCE2GO
			
DPS310 Pressure sensor			
Infineon sensor hub nano EVAL SHNBV01 Sensor hub nano	Infineon wireless sensor hub 2.0 KIT DPS310 2G SHV02	Schuttle boards EVAL SHSBV01-I2C and EVAL SHSBV01-SPI	S2GO PRESSURE DPS310
			

To get further information on our components for multicopter system solutions visit:

www.infineon.com/multicopter

www.infineon.com/evaluationboards

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