

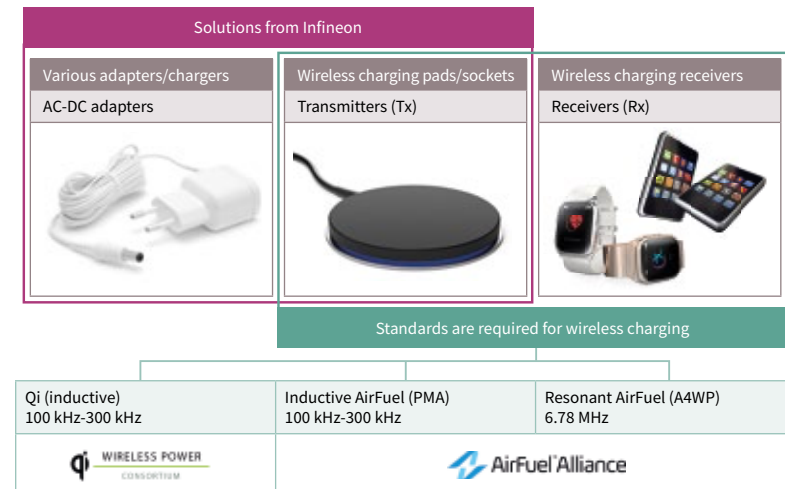
Application guide

Wireless charging for consumer

Introducing cost-effective solutions to ensure excellent user experience

Wireless charging uses electromagnetic fields to transfer power from a transmitter to a receiver to charge the battery of the end-application.

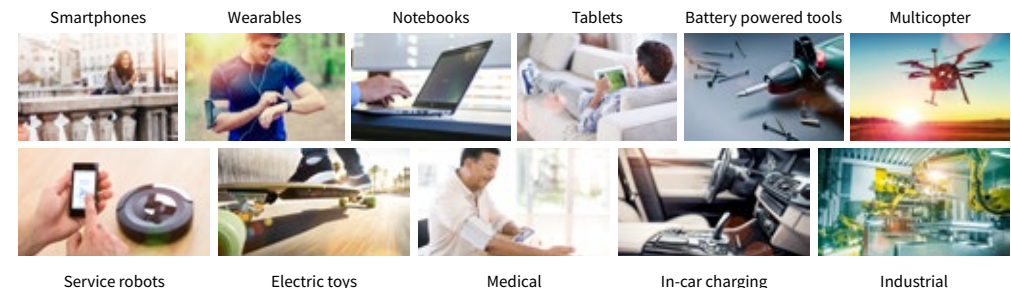
Infineon's broad selection of components helps you to master your design challenges for resonant and inductive solutions. As a member of the Wireless Power Consortium and the AirFuel Alliance, Infineon is dedicated to actively shape the trends of tomorrow.



Choose Infineon to solve your application requirements:

- › High performance MOSFETs, ICs and MCU at optimum price/performance ratio thanks to cost-effective packages and leading, reliable and mature silicon technology
- › High power density in small designs: Enabling the lowest switching and conduction losses in smallest packages for MOSFETs and power stage
- › Smallest possible package size (2 x 2, 3 x 3 half-bridge) for low power MOSFETs 30 V-250 V
- › Highest efficiency: In hard switching topologies, enjoy low switching losses thanks to low input and output capacitances

Infineon is working on its own medium voltage GaN technology and will bring it to the market with a significant performance increase over silicon MOSFETs and at the same level of reliability.

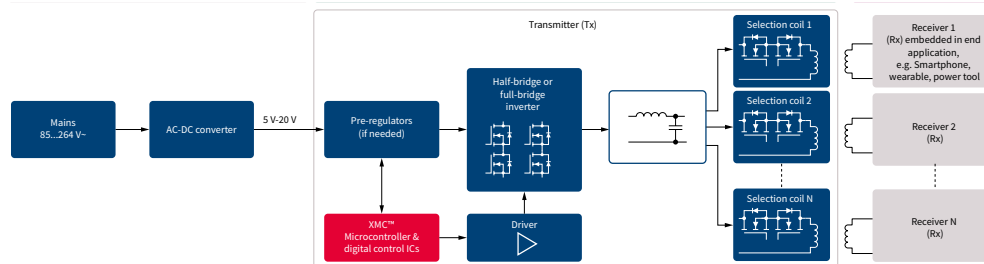


Wireless charging for consumer

Introducing cost-effective solutions to ensure excellent user experience



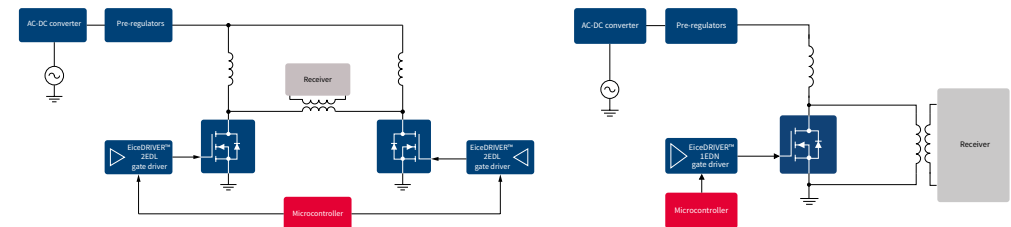
Inductive offerings



For charger/adaptor portion please go to: www.infineon.com/powersupplies

	Voltage	Package	Part number	$R_{DS(on)}$ (max.) @ V_{GS} 4.5 V [mΩ]		
Inverter	30 V	SuperSO8	BSC0996NS	11.8		
			BSC0993ND	7.0		
		PQFN 3.3 x 3.3	BSZ0589NS	4.4		
			BSZ0994NS	8.6		
			BSZ0909NS	15		
			IRFHS8342PbF	25		
		PQFN 2 x 2	IRLHS6342PbF	15.5		
			IRLHS6242PbF	11.7 (= 2.5 V drive capable)		
		Coil selection switch	20 V	PQFN 2 x 2	IRFHS8242PbF	21.0
					IRFHS8342PbF	25.0
IRLHS6342PbF	15.5 (= 2.5 V drive capable)					
25 V	BSZ0994NS		8.6			
	BSZ0909NS		15			
30 V	PQFN 3.3 x 3.3					
Microcontroller		XMC1302 or XMC1404 or XMC4108				

Resonant offerings



Class D full-bridge topology shown here, products also suitable for class D half-bridge topology

Class E single-ended topology shown here, products also suitable for class E differential topology

	Voltage	Package	Part number	$R_{DS(on)}$ (max.) @ V_{GS} 4.5 V [mΩ]	Q_r typical	C_{oss} typical	Topology
Inverter	30 V	PQFN 2 x 2 Dual	IRLHS6376PbF	48.0	2.8	32	Class D
		PQFN 3.3 x 3.3 Dual	BSZ0909ND	18.5	2.0	~120	Class D
		PQFN 3.3 x 3.3	BSZ0506NS	4.4	5.7	220	Class D
			BSZ065N03LS	6.9	5.2	270	Class D
	60 V	PQFN 2 x 2	IRL60HS118	19.0	4.5	118	Class D
	80 V		IRL80HS120	32.0	3.5	68	Class D/E
	100 V		IRL100HS121*	42.0	2.7	62	Class D/E
	150 V	PQFN 3.3 x 3.3	BSZ900N15NS3	75**	4.1**	46	Class E
	200 V		BSZ520N15NS3	42**	7.2**	80	Class E
			BSZ900N20NS3	78**	7.2**	52	Class E
	250 V		BSZ22DN20NS3	200**	3.5**	24	Class E
			BSZ12DN20NS3	111**	5.4	39	Class E
	BSZ42DN25NS3		375**	3.6**	21	Class E	
	Driver ICs			EiceDRIVER™ 2EDL71*			
			EiceDRIVER™ 1EDN				
Microcontroller			XMC1302 or XMC1404 or XMC4108				

* coming soon ** @ V_{GS} = 8 V

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