LTE Reference Designs

When it comes to choosing a device manufacturer, there are two main differentiating factors that carriers take into consideration: the time it takes the manufacturers to bring a product to market and the cost of developing their products. In order to accelerate time to revenue and minimize design, layout and productization time, Altair offers device manufacturers LTE reference designs and evaluation platforms for mPCIe and USB LTE dongles based on its commercial FourGee™-3100/6202 chipset. The reference designs include a full suite of the hardware, software and tools required to develop different variants of bands and application layer products. In addition, calibration, Design Verification Test (DVT) and product line test solutions are available from leading vendors enabling the fast and smooth transition from Altair's LTE reference design to mass production.

FourGee™-3100/6202 Product Highlights

> FDD-LTE and TD-LTE on a single chipset and software platform including dynamic handover between both duplexing technologies

> Support wide frequency range of 400-2700MHz including any 3GPP release 9 FDD-LTE and TD-LTE bands

> Software Defined Radio (SDR) based, 3GPP Release 9 compliant

> Ultra low power consumption

> Mature and extensively field trialed and IOT-tested with all tier-one infrastructure vendors

> The FourGee™-3100/6202 chipset is also ideal for integration in outdoor CPEs, M2M applications, smartphones and tablets

HDK (Hardware Development Kit)

> Reference design available for the following FDD-LTE and TD-LTE bands:

Model Number	Form Factor/ Band	3	4	7	12	13	14	17	20	25	26	38	39	40	41
0034-2.02	mPCIe		✓			✓									
0034-3.02	mPCIe	✓												✓	
0034-2.01	mPCIe	✓		✓					✓						
0034-4.02	mPCIe									✓	✓				✓
0034-3.01	mPCIe			✓								✓	✓	✓	
0027-8.01	USB Dongle			✓											
0027-8.02	USB Dongle	✓													
0027-8.04	USB Dongle									✓					
0027-3.01	USB Dongle						✓		✓						
0027-3.02	USB Dongle				✓	✓									
0027-6.02	USB Dongle													✓	
0027-6.01	USB Dongle											✓			
0027-6.03	USB Dongle														✓

> Full support for WiFi coexistence

> Full database required for manufacturing - schematics, layout files, gerbers and BOM

> Additional combinations available upon request

SDK (Software Development Kit)

> Full installation package supporting Windows, MAC, Linux OS and Android ICS/JB, including:

- FourGee™-3100/6202 LTE Protocol Stack firmware (including full L1, L2 and L3 support)
- Host network Drivers for Windows, MAC, Linux OS and Android ICS
- Connection manager application
- Factory calibration and verification tools for diagnostic testing, debugging and monitoring
- Documentation related to product design and production

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