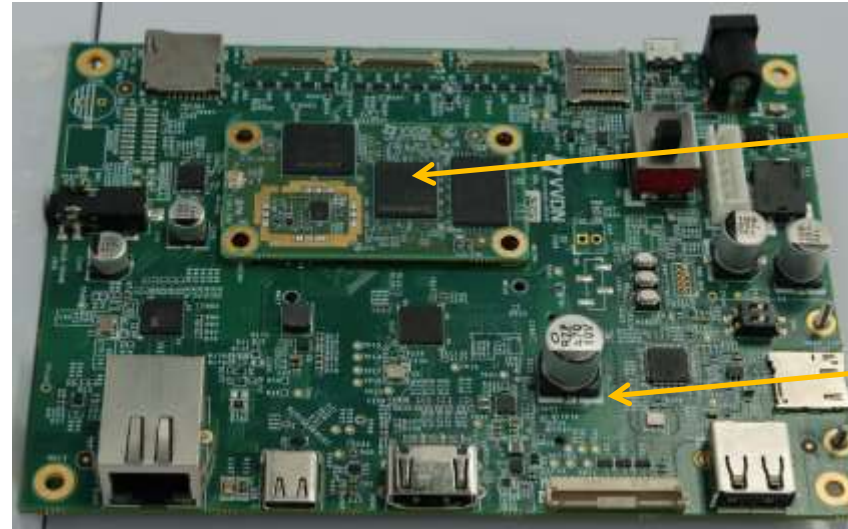


Comparison between 410 and 610 SOM

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04-Aug-2022

VVDN-QLCM-410/610EVK

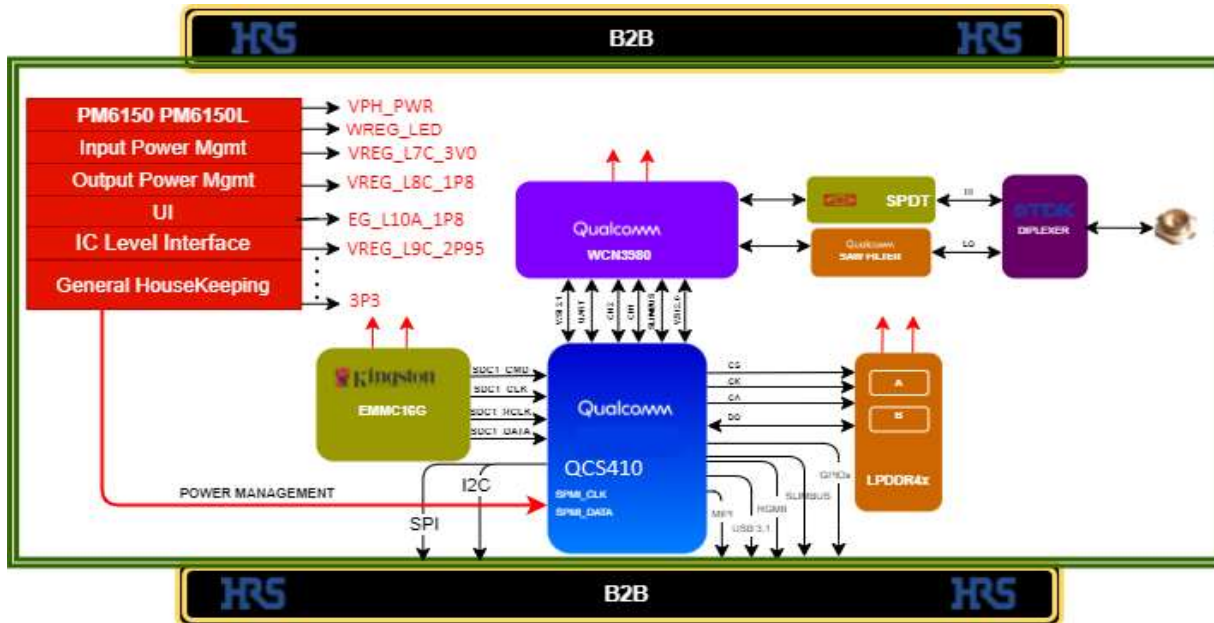


SOM Board

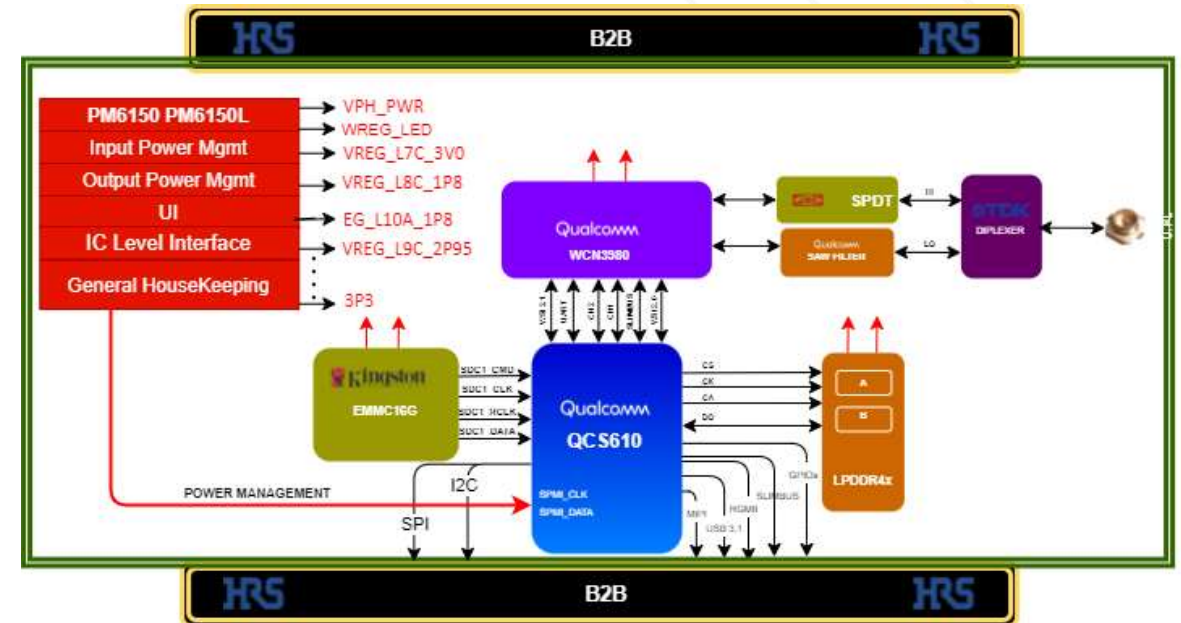
Carrier Board

- VVDN-QCS-EVK board supports following SOM modules,
 1. QCS 410 SOM
 2. QCS 610 SOM
- The major difference between the two SOMs are that it uses two different Qualcomm processors i.e QCS 410 and QCS 610. And compared to QCS410 ,QCS610 is having more processing power.
- Although the processors used are different, other chipsets/subsystems used in the SOM are same.
 1. PMIC- PM6150 & PM6150L for power management
 2. 16GB eMMC for storage.
 3. Qualcomm WCN3980 for Wi-Fi & Bluetooth
 4. 4GB LPDDR4x as Memory

QCS 410/610 SOM BLOCK DIAGRAM



QCS 410 SOM



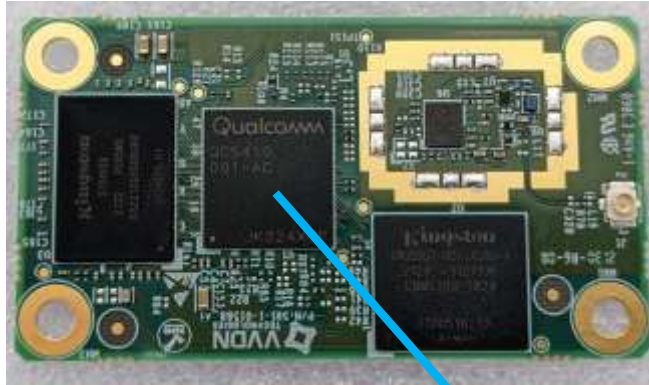
QCS 610 SOM

- The major difference is on Qualcomm Processor chipset.

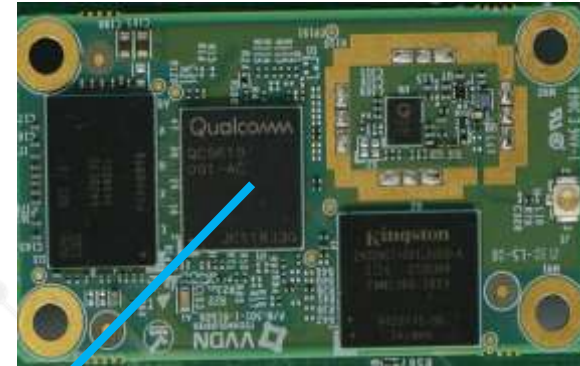
Comparison between QCS 410 and QCS 610 Processor based SOM Technical Specifications

QCS 410 SOM	QCS 610 SOM
<ul style="list-style-type: none"> Processor Qualcomm QCS410 Processor-Kryo Gold: Dual high-performance cores up to 2.2 GHz , Kryo Silver: Dual low-power cores up to 1.8 GHz <p>It supports Multi-format codec up to 1080p90 video encode. Multi-stream codec (1080p30 (H.264)+ 1080p30 (YUV) + 480P (VA -YUV))</p> <ul style="list-style-type: none"> All other blocks in the QCS410/610 processor are same and both are pin to pin compatible 	<ul style="list-style-type: none"> Processor Qualcomm QCS610 Processor-Kryo Gold: Dual high-performance cores up to 2.2 GHz, Kryo Silver: Hexa low-power cores up to 1.8 GHz <p>It supports Multi-format codec up to 4K30 video encode. Multi-stream codec (4K30 (HEVC) + 720p30 (YUV) + 480p30 (VA -YUV))</p> <ul style="list-style-type: none"> All other blocks in the QCS410/610 processor are same and both are pin to pin compatible
<ul style="list-style-type: none"> PM6150 - Qualcomm PMIC PM6150L - Qualcomm master PMIC 	<ul style="list-style-type: none"> PM6150 - Qualcomm PMIC PM6150L - Qualcomm master PMIC
<ul style="list-style-type: none"> 4GB LPDDR4X Memory <p>Kingston memory- B3221XC5GDGUKR</p>	<ul style="list-style-type: none"> 4GB LPDDR4X Memory <p>Samsung memory-K4UBE3D4AA-MGCL</p>
<ul style="list-style-type: none"> 16GB eMMC - Kingston 	<ul style="list-style-type: none"> 16GB eMMC - Kingston
<ul style="list-style-type: none"> Wi-Fi 2.4GHz/5GHz - Qualcomm WCN3980 	<ul style="list-style-type: none"> Wi-Fi 2.4GHz/5GHz - Qualcomm WCN3980
<ul style="list-style-type: none"> Bluetooth - Qualcomm WCN3980 	<ul style="list-style-type: none"> Bluetooth - Qualcomm WCN3980

Compactibility



QCS 410 SOM



QCS 610 SOM



Carrier Board

- Both 410 and 610 processor based SOMs are compactible with this carrier board



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