

DATA SHEET
SE2595L: Dual-Band 802.11n Wireless LAN Front-End
Preliminary Information

Applications

- 802.11n, MIMO solutions
- IEEE802.11b DSSS WLAN
- IEEE802.11g OFDM WLAN
- IEEE802.11a OFDM WLAN
- Access Points, PCMCIA, PC cards

Features

- 1 Transmit and 1 receive path architecture for use as MIMO building block.
- All RF ports matched to 50 Ω
- Integrated 2.4/5 GHz PA, 2.4/5 GHz LNA, TX Filter, T/R switches and diplexers
- Integrated Power Detector
- 19 dBm O/P Power, 802.11b, 11 Mbits, ACPR = 32 dBc
- 18 dBm @ 3.0 % EVM, 802.11g, 54 Mbits
- 16 dBm @ 3.0 % EVM, 802.11a, 54 Mbits
- Single supply voltage: 3.3 V \pm 10 %
- Lead free, Halogen Free and RoHS compliant
- Thin lead free plated package, 4 mm x 6 mm x 0.9 mm, MSL 1

Product Description

The SE2595L is a complete 802.11n WLAN RF front-end module providing all the functionality of the power amplifiers, LNA, power detector, T/R switch, diplexers and associated matching. The SE2595L provides a complete 2.4 GHz and 5 GHz WLAN Multiple Input, Multiple Output (MIMO) RF solution from the output of the transceiver to the antennas in a compact form factor.

The receive path is designed to maximize performance by providing both a low noise amplifier as well as a bypass state, for use when high power signals are being received.

Designed for ease of use, all RF ports are matched to 50 Ω to simplify PCB layout and the interface to the transceiver RFIC. The SE2595L also includes a transmitter power detector for each band with 20 dB of dynamic range. The power ramp rise/fall time is less than 0.5 μ s.

The device also provides band pass filters for both the a and b/g bands prior to the input of each 2.4 GHz and 5 GHz power amplifiers, respectively.

Ordering Information

| Part No. | Package | Remark |
|-------------|------------|----------------|
| SE2595L | 32 pin QFN | Samples |
| SE2595L-R | 32 pin QFN | Tape & Reel |
| SE2595L-EK1 | N/A | Evaluation kit |

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Functional Block Diagram

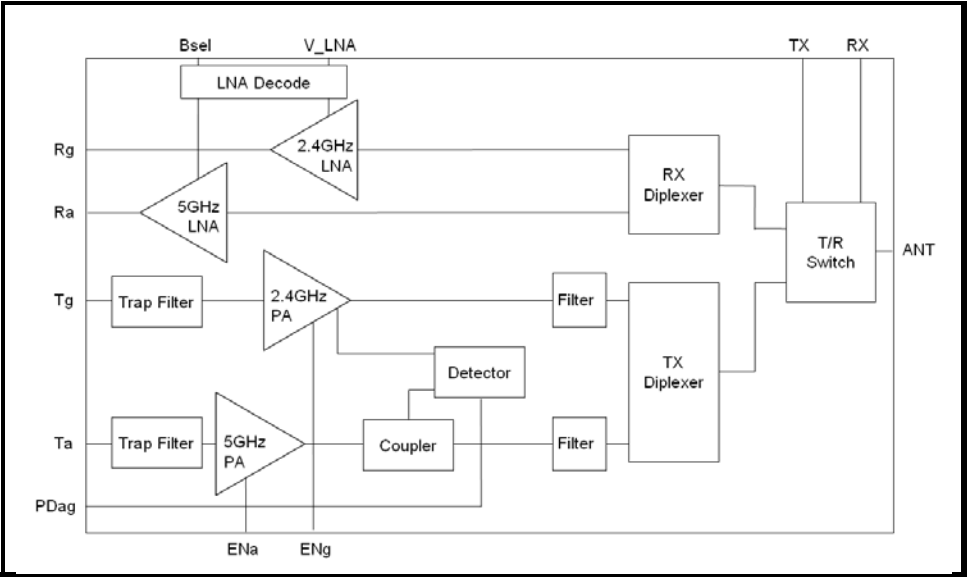


Figure 1: Functional Block Diagram

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Pin Out Diagram

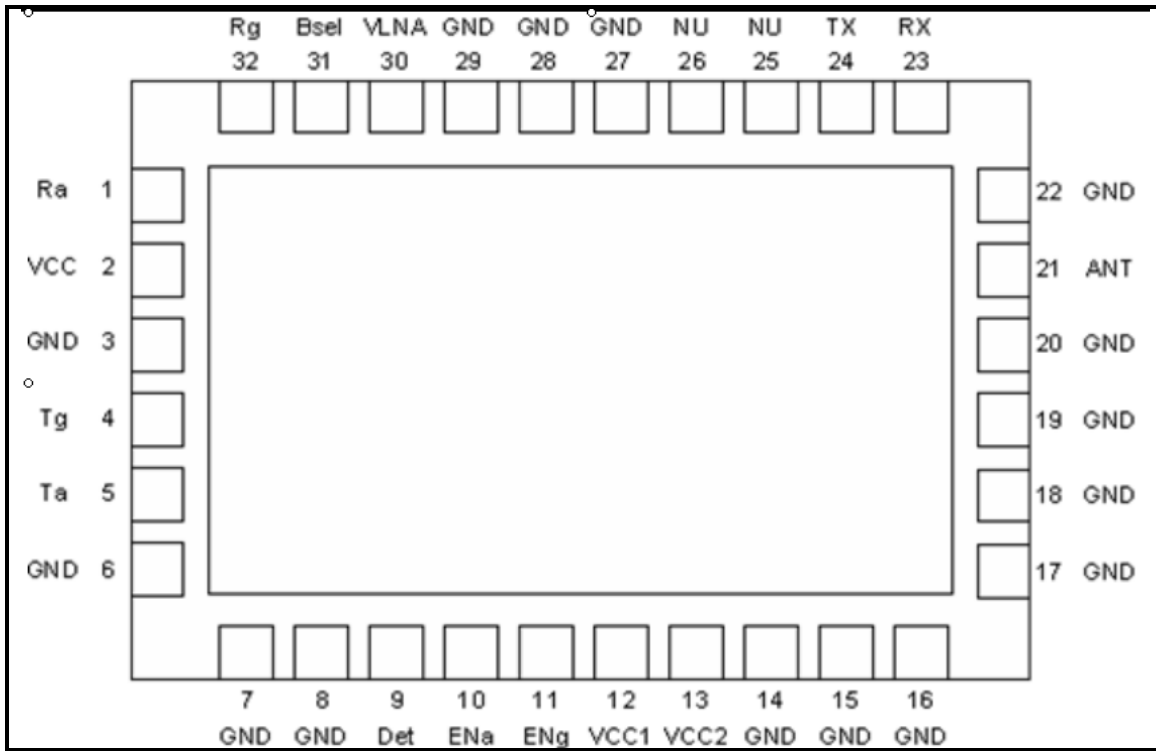


Figure 2: SE2595L Pin Out (Top View Through Package)

Pin Out Description

| Pin No. | Name | Description |
|---------|------|------------------------------|
| 1 | Ra | 5 GHz Receive Output |
| 2 | VCC | Supply Voltage, LNA |
| 3 | GND | Ground |
| 4 | Tg | 2.4 GHz Transmit Input |
| 5 | Ta | 5 GHz Transmit Input |
| 6 | GND | Ground |
| 7 | GND | Ground |
| 8 | GND | Ground |
| 9 | Det | Power Detector, 2.5 & 5 GHz |
| 10 | ENa | 5 GHz PA Enable |
| 11 | ENg | 2.4 GHz PA Enable |
| 12 | VCC1 | Supply Voltage, Driver Stage |
| 13 | VCC2 | Supply Voltage, Power Stage |

| Pin No. | Name | Description |
|---------|------|------------------|
| 14 | GND | Ground |
| 15 | GND | Ground |
| 16 | GND | Ground |
| 17 | GND | Ground |
| 18 | GND | Ground |
| 19 | GND | Ground |
| 20 | GND | Ground |
| 21 | ANT | Antenna |
| 22 | GND | Ground |
| 23 | RX | Rx Switch Select |
| 24 | TX | Tx Switch Select |
| 25 | NU | Not Used |
| 26 | NU | Not Used |

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| Pin No. | Name | Description | Pin No. | Name | Description |
|---------|------|-------------|---------|-------|------------------------|
| 27 | GND | Ground | 30 | V_LNA | LNA Enable |
| 28 | GND | Ground | 31 | Bsel | LNA Band Select |
| 29 | GND | Ground | 32 | Rg | 2.4 GHz Receive Output |

Absolute Maximum Ratings

These are stress ratings only. Exposure to stresses beyond these maximum ratings may cause permanent damage to, or affect the reliability of the device. Avoid operating the device outside the recommended operating conditions defined below. This device is ESD sensitive. Handling and assembly of this device should be at ESD protected workstations.

| Symbol | Definition | Min. | Max. | Unit |
|--------------------|---------------------------------------|------|------|------|
| V _{CC} | Supply Voltage | -0.3 | 4.2 | V |
| PU | ENg, ENa, V_LNA, Bsel | -0.3 | 4.0 | V |
| TX _{RF} | Ta, Tg, ANT terminated into 50Ω match | - | 10.0 | dBm |
| T _A | Operating Temperature Range | -40 | 85 | °C |
| T _{STG} | Storage Temperature Range | -40 | 150 | °C |
| ESD _{HBM} | JEDEC JESD22-A114 all pins | 150 | - | V |

Recommended Operating Conditions

| Symbol | Parameter | Min. | Typ. | Max. | Unit |
|-----------------|---------------------|------|------|------|------|
| V _{CC} | Supply Voltage | 3.0 | 3.3 | 3.6 | V |
| T _A | Ambient Temperature | -40 | 25 | 85 | °C |

DC Electrical Characteristics

Conditions: V_{CC} = 3.3 V, T_A = 25 °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted

| Symbol | Parameter | Conditions | Min. | Typ. | Max. | Unit |
|---------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------|------|------|------|------|
| TX _{ICC-G} | Total 802.11g Transmit Supply Current | P _{OUT} = 17 dBm, 54 Mbps OFDM signal, 64QAM, ENg = 3.3 V, ENa = 0 V, TX = 3.3 V, RX = 0 V | - | 180 | - | mA |
| TX _{ICQ-G} | Quiescent current, 802.11g Transmit supply Current | No RF applied ENg = 3.3 V, ENa = 0 V, TX = 3.3V, RX = 0 V | - | 110 | - | mA |
| TX _{ICC-A} | Total 802.11a Transmit Supply Current | P _{OUT} = 17 dBm, 54 Mbps OFDM signal, 64QAM, ENa = 3.3 V, ENg = 0 V, TX = 3.3 V, RX = 0 V | - | 230 | - | mA |

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| Symbol | Parameter | Conditions | Min. | Typ. | Max. | Unit |
|---------------------|-----------------------------------------------------------|--------------------------------------------------------------|------|------|------|------|
| TxI _{Cq-A} | Quiescent current , 802.11a Transmit supply Current | No RF applied ENa = 3.3V, ENg = 0V, TX = 3.3V, RX = 0V | - | 155 | - | mA |
| RxI _{CC-G} | Total 802.11b/g Receive Supply Current | V_LNA = 3.3 V, Bsel = 3.3 V, RX = 3.3 V, TX = 0 V | - | 8.5 | 15 | mA |
| RxI _{CC-a} | Total 802.11a Receive Supply Current | V_LNA = 3.3 V, Bsel = 0 V, RX = 3.3 V, TX = 0 V | - | 8.5 | 15 | mA |
| I _{CC_OFF} | Total Supply Current | No RF, ENg = ENa = 0 V, V_LNA = 0 V, TX = RX = 0 V | - | 2 | 100 | μA |

Transmit Power Amplifier Logic Characteristics

Conditions: V_{CC} = 3.3 V, T_A = 25 °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Conditions | Min. | Typ. | Max. | Unit |
|------------------|------------------------------------------------|------------|------|------|-----------------|------|
| V _{ENH} | Logic High Voltage for ENg, ENa (Module On) | - | - | 2.0 | V _{CC} | V |
| V _{ENL} | Logic Low Voltage ENg, ENa (Module Off) | - | 0 | 0.5 | - | V |
| I _{ENH} | Input Current Logic High Voltage (ENg, ENa) | - | - | 100 | 150 | μA |
| I _{ENL} | Input Current Logic Low Voltage (ENg, ENa) | - | - | 0.2 | - | μA |

Receive LNA Logic Characteristics

Conditions: V_{CC} = 3.3 V, T_A = 25 °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Conditions | Min. | Typ. | Max. | Unit |
|-------------------|---------------------------------------------------|------------|------|------|-----------------|------|
| V _{RENH} | Logic High Voltage for V_LNA, Bsel (Module On) | - | - | 3.2 | V _{CC} | V |
| V _{RENL} | Logic Low for V_LNA, Bsel (Module Off) | - | -0.5 | 0.3 | - | V |
| I _{RENH} | Input Current Logic High Voltage (V_LNA, Bsel) | - | - | - | 400 | μA |
| I _{RENL} | Input Current Logic Low Voltage (V_LNA, Bsel) | - | - | 0 | - | μA |

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| LNA Enable Logic | | LNA Function | | Comment |
|------------------|-------|--------------|-------------|----------------------------------------------------------------------------|
| V_LNA | Bsel | 2.4 GHz LNA | 5 GHz LNA | |
| VRENH | VRENH | Bypass Mode | Bypass Mode | No gain in either path. This can be used for high input signal conditions. |
| VRENH | VRENH | Bypass Mode | Bypass Mode | No gain in either path. This can be used for high input signal conditions. |
| VRENH | VRENH | Off | On | Activates a-band LNA |
| VRENH | VRENH | On | Off | Activates bg-band LNA |

RF Switch Characteristics

Conditions: $V_{CC} = V_{EN} = 3.3\text{ V}$, $T_A = 25\text{ }^\circ\text{C}$, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Conditions | Min. | Typ. | Max. | Unit |
|----------|------------------------------------------|--------------------------------------------------|------|------|-----------------|------|
| VCTL_ON | Control Voltage (On State) | - | 3.0 | - | 3.6 | V |
| VCTL_OFF | Control Voltage (OFF State) | - | 0.0 | - | 0.2 | V |
| SW_ON | Low Loss Switch Control Voltage | High State = VCTL_ON - VCTL_OFF | 2.8 | - | V _{CC} | V |
| SW_OFF | High Loss Switch Control Voltage | Low State = VCTL_OFF - VCTL_OFF | 0 | - | 0.2 | V |
| ICTL_ON | Switch Control Bias Current (RF Applied) | On pin (TX, RX) being driven high. RF Applied | - | - | 100 | μA |
| ICTL_ON | Switch Control Bias Current (No RF) | On pin (TX, RX) being driven high. No RF | - | - | 30 | μA |
| CCTL | Control Input Capacitance | - | - | - | 100 | pF |

| RF Switch Logic | | RF Switch Function | |
|-----------------|--------|--------------------|--------------|
| CTRL_T | CTRL_R | Tg, Ta – ANT | Rg, Ra – ANT |
| SW_ON | SW_OFF | ON | OFF |
| SW_OFF | SW_ON | OFF | ON |

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2.4 GHz AC Electrical Characteristics

2.4 GHz Transmit Characteristics

Conditions: $V_{CC} = 3.3\text{ V}$, $ENg = TX = 3.3\text{ V}$, $V_{LNA} = ENa = RX = 0\text{ V}$, $T_A = 25\text{ }^\circ\text{C}$, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|------------------|---------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|------------------|-------------------|---------------|
| F_{IN} | Frequency Range | - | 2400 | - | 2485 | MHz |
| $P_{802.11g}$ | Output power | 54 Mbps OFDM signal, 64QAM, EVM $\leq 3.0\%$ | 17 | 18 | - | dBm |
| $P_{802.11b}$ | Output power | 11 Mbps CCK signal, BT = 0.45 ACPR(Adj) < -32 ACPR(Alt) < -52 | 19 | 20 | - | dBm |
| BEVM | Backed Off EVM | 54 Mbps, OFDM signal, 64 QAM, P $\leq 12\text{ dBm}$ | - | 1.5 | - | % |
| P_{1dB} | P1dB | - | - | 23 | - | dBm |
| S_{21} | Small Signal Gain | 2400 – 2485 MHz 960 – 1600 MHz 1600 – 1660 MHz 3260 – 3267 MHz | 23 - - - | - - - - | 30 0 0 2 | dB |
| ΔS_{21} | Small Signal Gain Variation Over Band | Over any 40 MHz band | - | - | 0.5 | dB |
| $2f, 3f$ | Harmonics | $P_{out} = 18\text{ dBm}$, 1 Mbps, BPSK | - | -50 | -45.2 | dBm |
| | | $P_{out} = 17\text{ dBm}$, 54Mbps OFDM signal | - | -55 | -48.2 | |
| NF | Noise Figure | $P_{out} < 20\text{ dBm}$ | - | - | 10 | dB |
| t_r | Rise Time | 10 % to 90% of final output power level | - | - | 0.5 | μs |
| t_{dr}, t_{df} | Delay and rise/fall Time | 50 % of V_{EN} edge and 90/10 % of final output power level | - | - | 0.5 | μs |
| S_{11} | Input Return Loss | - | - | 10 | - | dB |
| Spur | Spurious | $P_{out} < 20\text{ dBm}$, VSWR = 2:1 100 MHz to 10 GHz | - | - | -45 | dBm/MHz |
| STAB | Stability | $P_{OUT} \leq 20\text{ dBm}$ Load VSWR = 10:1 | All non-harmonically related outputs less than -50 dBc/1MHz | | | |

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2.4 GHz Receive Characteristics

Conditions: VCC = V_LNA = Bsel = RX = 3.3V, ENg = ENa = TX = 0 V, TA = 25 °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|---------------------|----------------------------|-----------------------------------------------------------|------|-----------|----------|------|
| F _{OUT} | Frequency Range | - | 2400 | - | 2500 | MHz |
| S ₂₁ | Receive Gain, LNA enabled. | 2400 – 2485 MHz | 11 | 13 | - | dB |
| | | 800 – 1200 MHz | - | - | -10 | |
| 1200 – 1700 MHz | | - | - | 3 | | |
| 1700 – 1900 MHz | | - | - | 10 | | |
| 3200 – 6000 MHz | | - | 10 | - | | |
| | Receive Gain, Bypass mode | V_LNA = 0 V 2400 – 2485 MHz | - | -7 | - | dB |
| ΔS ₂₁ | Gain Variation | 2400 – 2485 MHz, Over any 40MHz band | - | - | .5 | dB |
| NF | Noise Figure | | - | 2.6 7 | 2.8 - | dB |
| IIP3 | Third Order Intercept | 2.45GHz, 1MHz offset | - | 9 | - | dBm |
| ISOL _{RRX} | Reverse Isolation | V_LNA = 0V, RX = 0 V | - | -23 | - | dB |
| INT | Interferer | With this input , IIP3 can only degrade by 1dB | -10 | - | - | dBm |
| S ₁₁ | Input Return Loss | - | 10 | 12 | - | dB |
| IP1dB | Input P1dB | V_LNA = 3.3 V V_LNA = 0 V | - | -3.5 8 | - | dBm |
| T _{EN} | Enable Time | 10% to 90% of RX RF power, from time that V_LNA is at 50% | - | - | 500 | nsec |

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5 GHz AC Electrical Characteristics

5 GHz Transmit Characteristics

Conditions: VCC = 3.3 V, ENa = TX = 3.3 V, V_LNA = ENg = RX = 0 V, TA = 25 °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|-----------------------------------|-------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------|------------|------------|---------|
| F _{IN} | Frequency Range | - | 4900 | - | 5850 | MHz |
| P _{802.11a} | Nominal Output Power | 54 Mbps OFDM signal, 64 QAM, EVM = 3.0 % | - | 16 | - | dBm |
| BEVM | Backed Off EVM | 54 Mbps, OFDM signal, 64 QAM, P ≤ 7 dBm | - | 1.5 | - | % |
| P _{1dB} | P1DB | - | - | 21 | - | dBm |
| S ₂₁ | Small Signal Gain | 4900 – 5850 MHz | 22 | - | 31 | dB |
| | | 960 – 3265 MHz | - | -30 | 10 | |
| | | 3265 – 3900 MHz | - | -10 | 8 | |
| | | 6900 – 7250 MHz | - | -10 | 6 | |
| | | 7250 – 7800 MHz | - | -12 | -10 | |
| ΔS ₂₁ | Small Signal Gain Variation Over 40 MHz Channel | | - | 0.4 | - | dB |
| | Small Signal Gain Variation Over Band | | - | 6 | - | dB |
| 2f,3f | Harmonics, 54Mbps, 802.11a signal | Pout = 16dBm 4900 – 5150 MHz 5150 – 5850 MHz | - - | -45 -50 | -42 -48 | dBm/MHz |
| NF | Noise Figure | Pout < 16 dBm 4900 – 5850 MHz | - | - | 10 | dB |
| t _r | Rise Time | 10 % to 90% of final output power level | - | - | 0.8 | μs |
| t _{dr} , t _{df} | Delay and rise/fall Time | 50 % of V _{EN} edge and 90/10 % of final output power level | - | - | 0.5 | μs |
| S ₁₁ | Input Return Loss | - | - | 8 | - | dB |
| SPUR | Spurious | Pout < 16dBm, VSWR = 2:1, 100 – 24000 MHz | - | - | -45 | dBm/MHz |
| STAB | Stability | P _{OUT} ≤ 17 dBm Load VSWR = 10:1 | All non-harmonically related outputs less than -50 dBc/1MHz | | | |

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5 GHz Receive Characteristics

Conditions: $V_{CC} = V_{LNA} = RX = 3.3$ V, $Bsel = ENg = ENa = TX = 0$ V, $T_A = 25$ °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|---------------------|---------------------------|---------------------------------------------------------------|------|----------|------|------|
| F _{OUT} | Frequency Range | - | 4900 | - | 5850 | MHz |
| S ₂₁ | Receive Gain | 4900 – 5850 MHz | - | 12 | - | dB |
| | | 800 – 2500 MHz | - | -10 | -5 | |
| 2500 – 3900 MHz | | - | 6 | - | | |
| 6500 – 7800 MHz | | - | 11 | - | | |
| | Receive Gain, Bypass mode | $V_{LNA} = 0.0$ V | - | -7 | - | dB |
| ΔS_{21} | Gain Variation | 4900 – 5850 MHz, Over any 40MHz band | - | - | 0.5 | dB |
| NF | Noise Figure | | - | 2.8 | 3.2 | dB |
| IIP3 | Third Order Intercept | 5.45GHz, 1MHz offset | - | -3 | - | dBm |
| ISOL _{RRX} | Reverse Isolation | $V_{LNA} = 0V$, $RX = 0V$ | - | 20 | - | dB |
| INT | Interferer | With this input IIP3 can only degrade by 1dB | -10 | - | - | dBm |
| S ₁₁ | Return Loss | - | - | 8 | - | dB |
| IP1dB | Input P1dB | $V_{LNA} = 3.3$ V $V_{LNA} = 0$ V | - | -3 10 | - | dBm |
| T _{EN} | Enable Time | 10% to 90% of RX RF power, from time that V_{LNA} is at 50% | - | - | 500 | nsec |

2.4 GHz Power Detector Characteristics

Conditions: $V_{CC} = 3.3$ V, $ENg = TX = 3.3$ V, $V_{LNA} = RX = ENa = 0$ V, $T_A = 25$ °C, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|---------------------|-------------------------------------------|-----------------|------|------|------|------|
| F _{OUT} | Frequency Range | - | 2400 | - | 2500 | MHz |
| PDR | Power detect range, peak power | Measured at ANT | 0 | - | 22 | dBm |
| PDZ _{LOAD} | DC load impedance | - | - | 2.7 | 3 | kΩ |
| PDV _{P22} | Output Voltage, P _{OUT} = 21 dBm | - | - | 0.86 | - | V |
| PDV _{p0} | Output Voltage, P _{OUT} = 5 dBm | - | - | 0.35 | - | V |

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| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|---------------------------------|----------------------------------------------------|--------------------------------------|------|------|------|------|
| PDV _{pnoRF} | Output Voltage, P _{OUT} = No RF | - | - | 0.32 | - | V |
| LPF _{-3dB} (Note 2) | Power detect low pass filter -3dB corner frequency | Load = high impedance Typ: 500 kΩ | 270 | 300 | 400 | KHz |

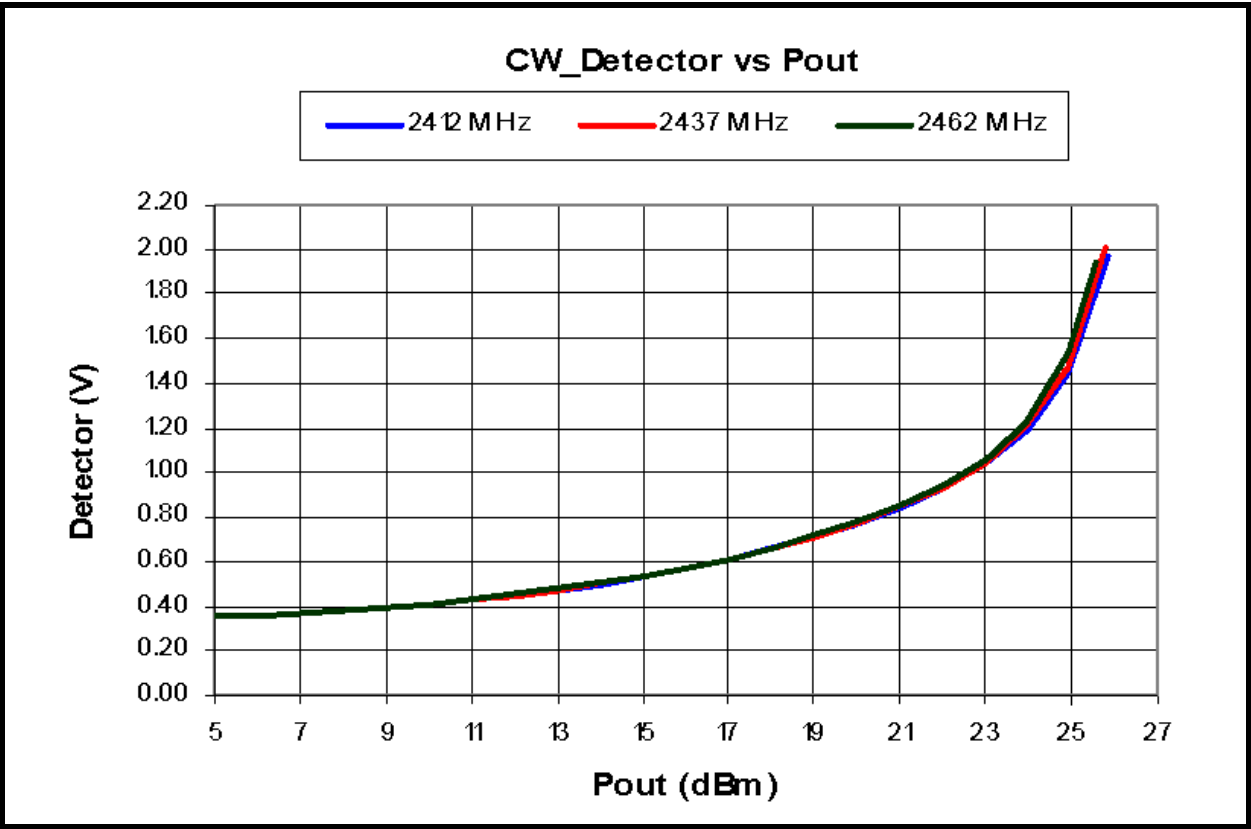


Figure 3: Power Detector Characteristics

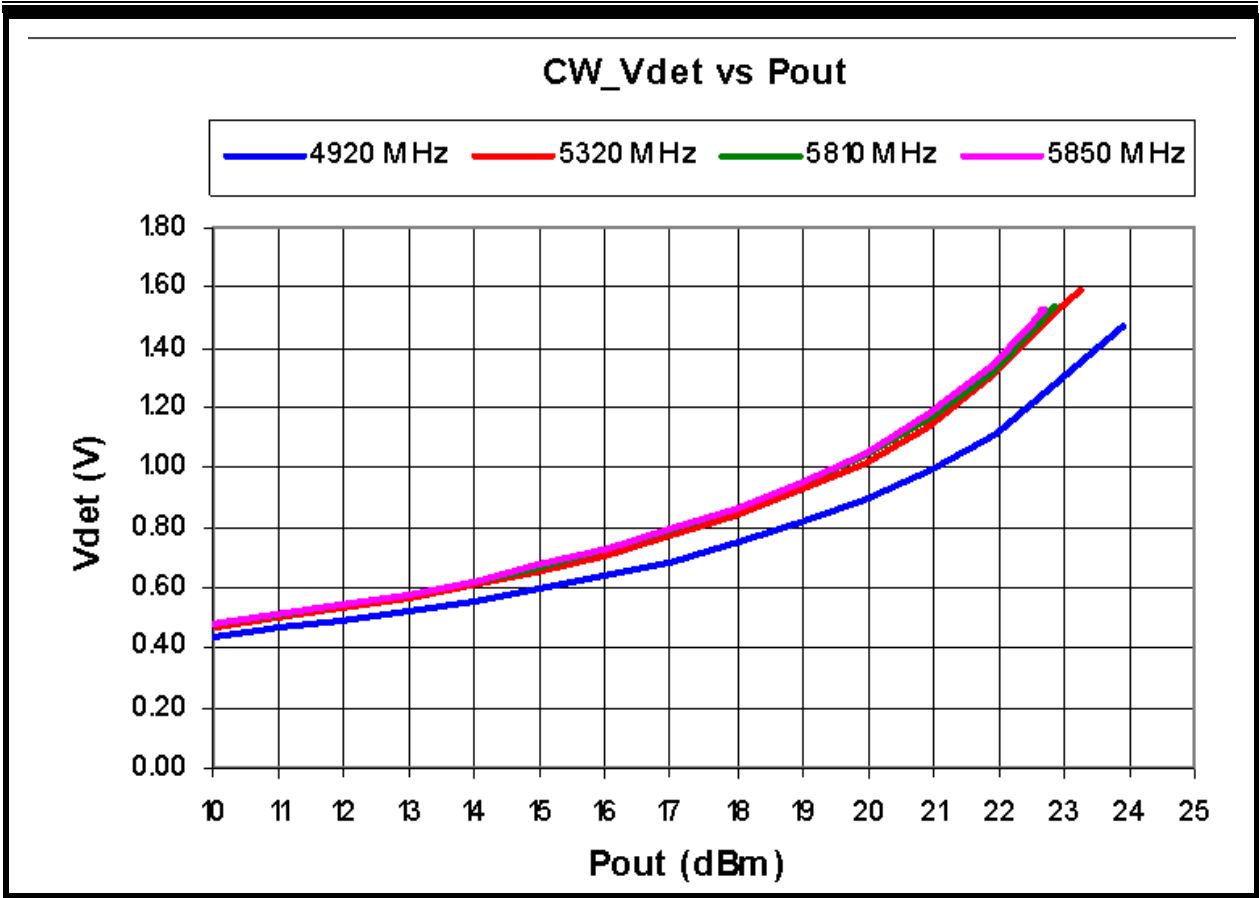
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5 GHz Power Detector Characteristic

Conditions: $V_{CC} = 3.3\text{ V}$, $E_{NA} = TX = 3.3\text{ V}$, $V_{LNA} = RX = ENg = 0\text{ V}$, $T_A = 25\text{ }^\circ\text{C}$, as measured on Skyworks Solutions' SE2595L-EV1 evaluation board (de-embedded to device), all unused ports terminated with 50 ohms, unless otherwise noted.

| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|---------------------------------|----------------------------------------------------|----------------------------------------------|------|------|------|------------|
| F_{OUT} | Frequency Range | - | 4900 | - | 5850 | MHz |
| PDR | Power detect range, peak power | Measured at ANT | 0 | - | 20 | dBm |
| PDZ _{LOAD} | DC load impedance | - | - | 2.7 | 3 | k Ω |
| PDV _{P20} | Output Voltage, $P_{OUT} = 17\text{ dBm}$ | - | - | 0.80 | - | V |
| PDV _{p0} | Output Voltage, $P_{OUT} = 3\text{ dBm}$ | - | - | 0.34 | - | V |
| PDV _{pnoRF} | Output Voltage, $P_{OUT} = \text{No RF}$ | - | - | 0.32 | - | V |
| LPF _{-3dB} (Note 3) | Power detect low pass filter -3dB corner frequency | Load = high impedance Typ: 500 k Ω | 270 | 300 | 400 | KHz |

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Package Diagram

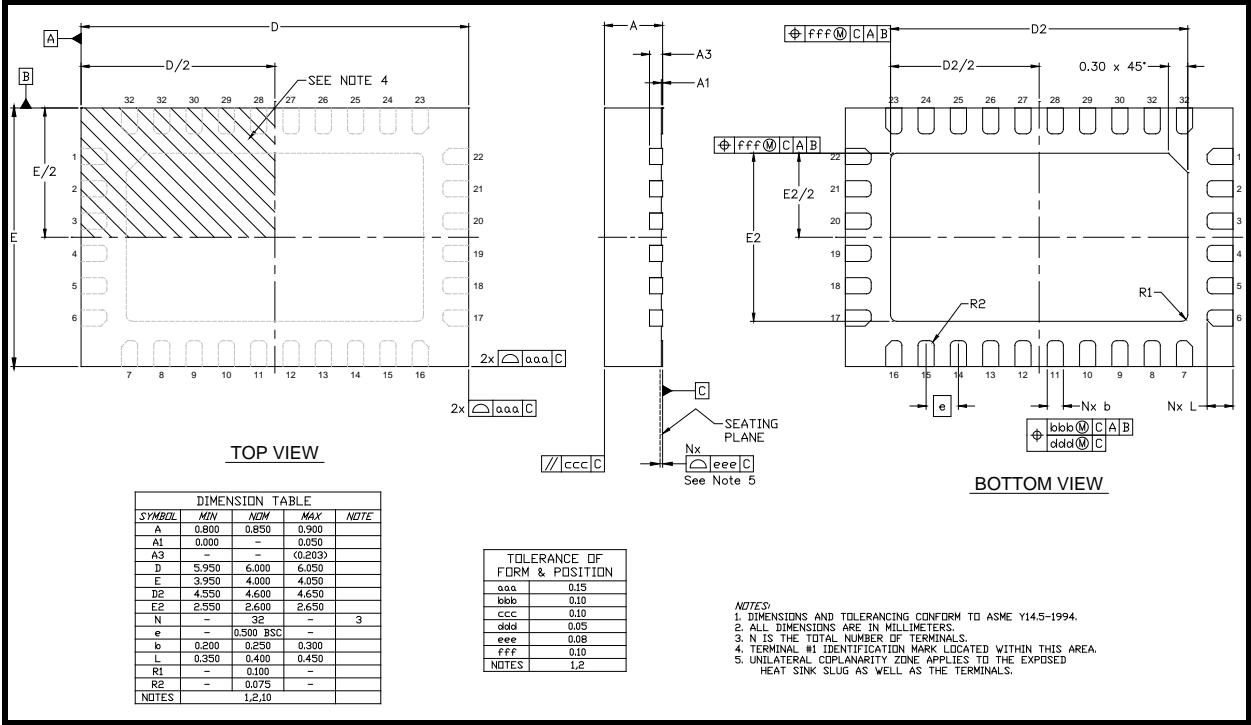


Figure 4: Package Outline Drawing

Recommended Land and Solder Patterns

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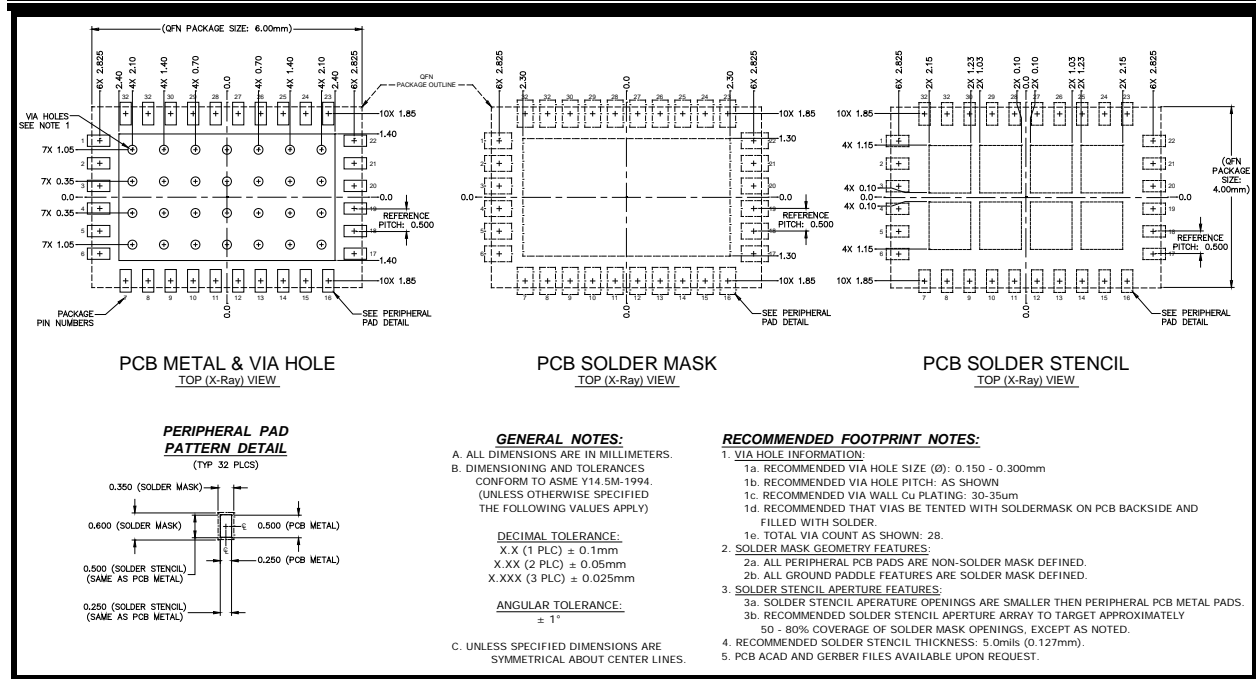


Figure 5: Recommended Land and Solder Pattern

Package Handling Information

Because of its sensitivity to moisture absorption, instructions on the shipping container label must be followed regarding exposure to moisture after the container seal is broken, otherwise, problems related to moisture absorption may occur when the part is subjected to high temperature during solder assembly. The SE2595L is capable of withstanding a Pb free solder reflow. Care must be taken when attaching this product, whether it is done manually or in a production solder reflow environment. If the part is manually attached, precaution should be taken to insure that the device is not subjected to temperatures above its rated peak temperature for an extended period of time. For details on both attachment techniques, precautions, and handling procedures recommended, please refer to:

- “Quad Flat No-Lead Module Solder Reflow & Rework Information”, *Document Number QAD-00045*
- “Handling, Packing, Shipping and Use of Moisture Sensitive QFN”, *Document Number QAD-00044*
- “ESD Control Policy”, *Document Number SQ03-0062*



Caution! Class 0 ESD sensitive device

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Tape and Reel Information

| Parameter | Value |
|------------------|----------------|
| Devices Per Reel | 3000 |
| Reel Diameter | 13 inches |
| Tape Width | 16 millimeters |

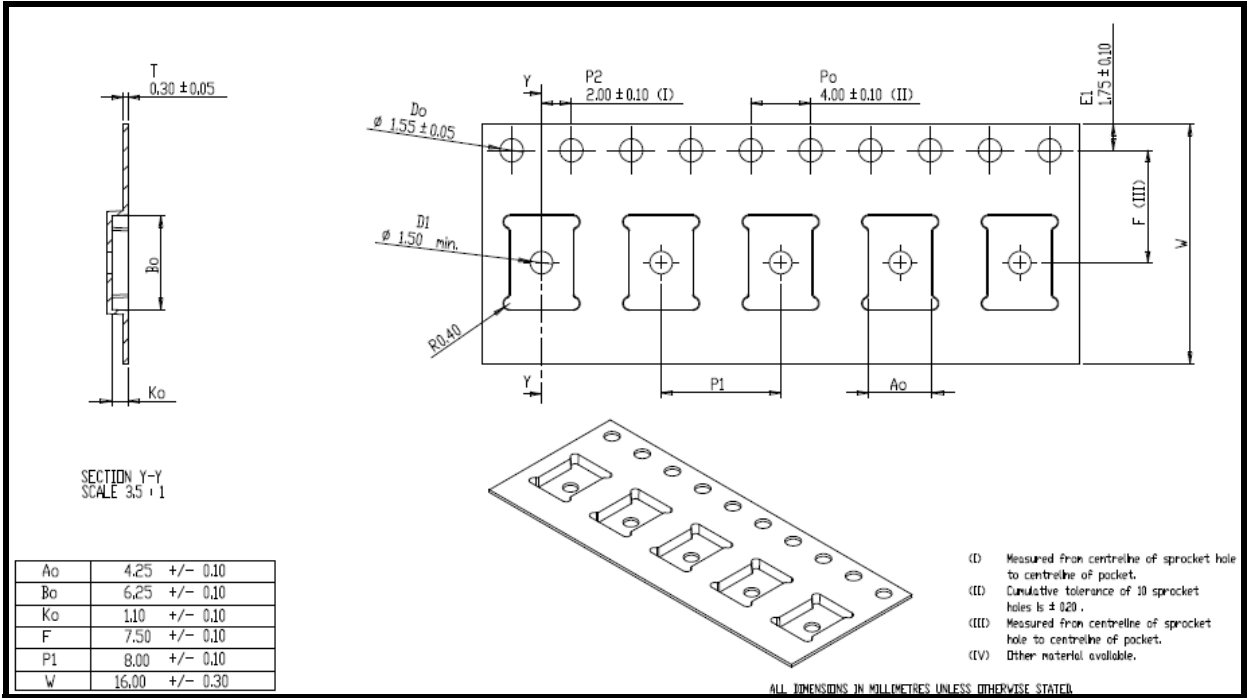


Figure 6: Tape and Reel Information

Branding Information

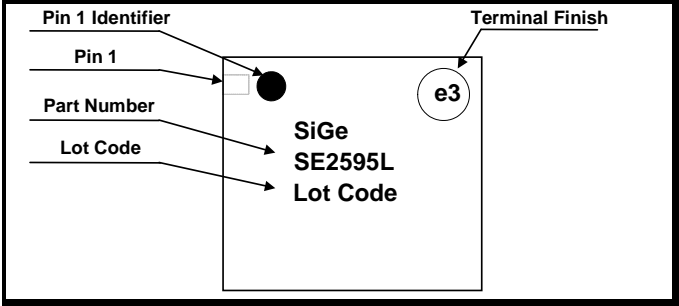


Figure 7: SE2595L Branding Information

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Document Change History

| Revision | Date | Notes |
|----------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.0 | June 29, 2008 | Create |
| 1.1 | March 11, 2009 | Update Gain in both bands Updated detector characteristics Updated packing method to Tape & Reel Added package outline drawing and recommended land pattern Updated input return loss. Updated RX IIP3 |
| 1.2 | April 6, 2009 | Updated LNA characteristics. Corrected product and terminal finish marking on Branding information |
| 1.3 | April 29, 2009 | Updated LNA Logic Characteristics (I_{RENH}) to 400uA |
| 1.4 | May 1, 2009 | Updated detector characteristics |
| 1.5 | July 30, 2009 | Updated 5GHz Gain Characteristics |
| 1.6 | Aug 28, 2009 | Updated Tape and Reel drawings. |
| 1.7 | Jan 11, 2010 | Updated ICC_OFF specification. |
| 1.8 | Jan 8, 2011 | Updated MSL rating to MSL 1 |
| 1.9 | Apr 9, 2011 | Updated recommended operating conditions to industrial temperature range |
| 2.0 | Mar 28, 2012 | Updated with Skyworks logo and disclaimer statement |



DATA SHEET
SE2595L: Dual-Band 802.11n Wireless LAN Front-End
Preliminary Information

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