

EX3DV4 - SN:7607

July 04, 2023

| UID | Rev | Communication System Name | Group | PAR (dB) | Unc ^k k = 2 |
|-------|-----|---|-----------|----------|------------------------|
| 10609 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle) | WLAN | 8.57 | ±9.6 |
| 10610 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS3, 90pc duty cycle) | WLAN | 8.78 | ±9.6 |
| 10611 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS4, 90pc duty cycle) | WLAN | 8.70 | ±9.6 |
| 10612 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle) | WLAN | 8.77 | ±9.6 |
| 10613 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle) | WLAN | 8.94 | ±9.6 |
| 10614 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duty cycle) | WLAN | 8.59 | ±9.6 |
| 10615 | AAC | IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc duty cycle) | WLAN | 8.82 | ±9.6 |
| 10616 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc duty cycle) | WLAN | 8.82 | ±9.6 |
| 10617 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle) | WLAN | 8.81 | ±9.6 |
| 10618 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle) | WLAN | 8.58 | ±9.6 |
| 10619 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle) | WLAN | 8.86 | ±9.6 |
| 10620 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS4, 90pc duty cycle) | WLAN | 8.87 | ±9.6 |
| 10621 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle) | WLAN | 8.77 | ±9.6 |
| 10622 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS6, 90pc duty cycle) | WLAN | 8.68 | ±9.6 |
| 10623 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS7, 90pc duty cycle) | WLAN | 8.82 | ±9.6 |
| 10624 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS8, 90pc duty cycle) | WLAN | 8.96 | ±9.6 |
| 10625 | AAC | IEEE 802.11ac WiFi (40 MHz, MCS9, 90pc duty cycle) | WLAN | 8.96 | ±9.6 |
| 10626 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS0, 90pc duty cycle) | WLAN | 8.83 | ±9.6 |
| 10627 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS1, 90pc duty cycle) | WLAN | 8.88 | ±9.6 |
| 10628 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duty cycle) | WLAN | 8.71 | ±9.6 |
| 10629 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS3, 90pc duty cycle) | WLAN | 8.85 | ±9.6 |
| 10630 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS4, 90pc duty cycle) | WLAN | 8.72 | ±9.6 |
| 10631 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS5, 90pc duty cycle) | WLAN | 8.81 | ±9.6 |
| 10632 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS6, 90pc duty cycle) | WLAN | 8.74 | ±9.6 |
| 10633 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS7, 90pc duty cycle) | WLAN | 8.83 | ±9.6 |
| 10634 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS8, 90pc duty cycle) | WLAN | 8.80 | ±9.6 |
| 10635 | AAC | IEEE 802.11ac WiFi (80 MHz, MCS9, 90pc duty cycle) | WLAN | 8.81 | ±9.6 |
| 10636 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS0, 90pc duty cycle) | WLAN | 8.83 | ±9.6 |
| 10637 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle) | WLAN | 8.79 | ±9.6 |
| 10638 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS2, 90pc duty cycle) | WLAN | 8.86 | ±9.6 |
| 10639 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS3, 90pc duty cycle) | WLAN | 8.85 | ±9.6 |
| 10640 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS4, 90pc duty cycle) | WLAN | 8.98 | ±9.6 |
| 10641 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS5, 90pc duty cycle) | WLAN | 9.06 | ±9.6 |
| 10642 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle) | WLAN | 9.06 | ±9.6 |
| 10643 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle) | WLAN | 8.89 | ±9.6 |
| 10644 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS8, 90pc duty cycle) | WLAN | 9.05 | ±9.6 |
| 10645 | AAD | IEEE 802.11ac WiFi (160 MHz, MCS9, 90pc duty cycle) | WLAN | 9.11 | ±9.6 |
| 10646 | AAH | LTE-TDD (SC-FDMA, 1 RB, 5MHz, QPSK, UL Subframe=2,7) | LTE-TDD | 11.96 | ±9.6 |
| 10647 | AAG | LTE-TDD (SC-FDMA, 1 RB, 20MHz, QPSK, UL Subframe=2,7) | LTE-TDD | 11.96 | ±9.6 |
| 10648 | AAA | CDMA2000 (1x Advanced) | CDMA2000 | 3.45 | ±9.6 |
| 10652 | AAF | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD | 6.91 | ±9.6 |
| 10653 | AAF | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD | 7.42 | ±9.6 |
| 10654 | AAE | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD | 6.96 | ±9.6 |
| 10655 | AAF | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD | 7.21 | ±9.6 |
| 10658 | AAB | Pulse Waveform (200Hz, 10%) | Test | 10.00 | ±9.6 |
| 10659 | AAB | Pulse Waveform (200Hz, 20%) | Test | 6.99 | ±9.6 |
| 10660 | AAB | Pulse Waveform (200Hz, 40%) | Test | 3.98 | ±9.6 |
| 10661 | AAB | Pulse Waveform (200Hz, 60%) | Test | 2.22 | ±9.6 |
| 10662 | AAB | Pulse Waveform (200Hz, 80%) | Test | 0.97 | ±9.6 |
| 10670 | AAA | Bluetooth Low Energy | Bluetooth | 2.19 | ±9.6 |
| 10671 | AAC | IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle) | WLAN | 9.09 | ±9.6 |
| 10672 | AAC | IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle) | WLAN | 8.57 | ±9.6 |
| 10673 | AAC | IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle) | WLAN | 8.78 | ±9.6 |
| 10674 | AAC | IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle) | WLAN | 8.74 | ±9.6 |
| 10675 | AAC | IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle) | WLAN | 8.90 | ±9.6 |
| 10676 | AAC | IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle) | WLAN | 8.77 | ±9.6 |
| 10677 | AAC | IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle) | WLAN | 8.73 | ±9.6 |
| 10678 | AAC | IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle) | WLAN | 8.78 | ±9.6 |
| 10679 | AAC | IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle) | WLAN | 8.89 | ±9.6 |
| 10680 | AAC | IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle) | WLAN | 8.80 | ±9.6 |
| 10681 | AAC | IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle) | WLAN | 8.62 | ±9.6 |
| 10682 | AAC | IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle) | WLAN | 8.83 | ±9.6 |
| 10683 | AAC | IEEE 802.11ax (20 MHz, MCS0, 99pc duty cycle) | WLAN | 8.42 | ±9.6 |
| 10684 | AAC | IEEE 802.11ax (20 MHz, MCS1, 99pc duty cycle) | WLAN | 8.26 | ±9.6 |
| 10685 | AAC | IEEE 802.11ax (20 MHz, MCS2, 99pc duty cycle) | WLAN | 8.33 | ±9.6 |
| 10686 | AAC | IEEE 802.11ax (20 MHz, MCS3, 99pc duty cycle) | WLAN | 8.28 | ±9.6 |

EX3DV4 - SN:7607

July 04, 2023

| UID | Rev | Communication System Name | Group | PAR (dB) | Unc ^E k = 2 |
|-------|-----|--|-------|----------|------------------------|
| 10687 | AAC | IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle) | WLAN | 8.45 | ±9.6 |
| 10688 | AAC | IEEE 802.11ax (20 MHz, MCS5, 99pc duty cycle) | WLAN | 8.29 | ±9.6 |
| 10689 | AAC | IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle) | WLAN | 8.55 | ±9.6 |
| 10690 | AAC | IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle) | WLAN | 8.29 | ±9.6 |
| 10691 | AAC | IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle) | WLAN | 8.25 | ±9.6 |
| 10692 | AAC | IEEE 802.11ax (20 MHz, MCS9, 99pc duty cycle) | WLAN | 8.29 | ±9.6 |
| 10693 | AAC | IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle) | WLAN | 8.25 | ±9.6 |
| 10694 | AAC | IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle) | WLAN | 8.57 | ±9.6 |
| 10695 | AAC | IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle) | WLAN | 8.78 | ±9.6 |
| 10696 | AAC | IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle) | WLAN | 8.91 | ±9.6 |
| 10697 | AAC | IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle) | WLAN | 8.61 | ±9.6 |
| 10698 | AAC | IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle) | WLAN | 8.89 | ±9.6 |
| 10699 | AAC | IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle) | WLAN | 8.82 | ±9.6 |
| 10700 | AAC | IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle) | WLAN | 8.73 | ±9.6 |
| 10701 | AAC | IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle) | WLAN | 8.86 | ±9.6 |
| 10702 | AAC | IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle) | WLAN | 8.70 | ±9.6 |
| 10703 | AAC | IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle) | WLAN | 8.82 | ±9.6 |
| 10704 | AAC | IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle) | WLAN | 8.56 | ±9.6 |
| 10705 | AAC | IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle) | WLAN | 8.69 | ±9.6 |
| 10706 | AAC | IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle) | WLAN | 8.66 | ±9.6 |
| 10707 | AAC | IEEE 802.11ax (40 MHz, MCS0, 99pc duty cycle) | WLAN | 8.32 | ±9.6 |
| 10708 | AAC | IEEE 802.11ax (40 MHz, MCS1, 99pc duty cycle) | WLAN | 8.55 | ±9.6 |
| 10709 | AAC | IEEE 802.11ax (40 MHz, MCS2, 99pc duty cycle) | WLAN | 8.33 | ±9.6 |
| 10710 | AAC | IEEE 802.11ax (40 MHz, MCS3, 99pc duty cycle) | WLAN | 8.29 | ±9.6 |
| 10711 | AAC | IEEE 802.11ax (40 MHz, MCS4, 99pc duty cycle) | WLAN | 8.39 | ±9.6 |
| 10712 | AAC | IEEE 802.11ax (40 MHz, MCS5, 99pc duty cycle) | WLAN | 8.67 | ±9.6 |
| 10713 | AAC | IEEE 802.11ax (40 MHz, MCS6, 99pc duty cycle) | WLAN | 8.33 | ±9.6 |
| 10714 | AAC | IEEE 802.11ax (40 MHz, MCS7, 99pc duty cycle) | WLAN | 8.26 | ±9.6 |
| 10715 | AAC | IEEE 802.11ax (40 MHz, MCS8, 99pc duty cycle) | WLAN | 8.45 | ±9.6 |
| 10716 | AAC | IEEE 802.11ax (40 MHz, MCS9, 99pc duty cycle) | WLAN | 8.30 | ±9.6 |
| 10717 | AAC | IEEE 802.11ax (40 MHz, MCS10, 99pc duty cycle) | WLAN | 8.48 | ±9.6 |
| 10718 | AAC | IEEE 802.11ax (40 MHz, MCS11, 99pc duty cycle) | WLAN | 8.24 | ±9.6 |
| 10719 | AAC | IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle) | WLAN | 8.81 | ±9.6 |
| 10720 | AAC | IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle) | WLAN | 8.87 | ±9.6 |
| 10721 | AAC | IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle) | WLAN | 8.76 | ±9.6 |
| 10722 | AAC | IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle) | WLAN | 8.55 | ±9.6 |
| 10723 | AAC | IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle) | WLAN | 8.70 | ±9.6 |
| 10724 | AAC | IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle) | WLAN | 8.90 | ±9.6 |
| 10725 | AAC | IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle) | WLAN | 8.74 | ±9.6 |
| 10726 | AAC | IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle) | WLAN | 8.72 | ±9.6 |
| 10727 | AAC | IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle) | WLAN | 8.66 | ±9.6 |
| 10728 | AAC | IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle) | WLAN | 8.65 | ±9.6 |
| 10729 | AAC | IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle) | WLAN | 8.64 | ±9.6 |
| 10730 | AAC | IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle) | WLAN | 8.67 | ±9.6 |
| 10731 | AAC | IEEE 802.11ax (80 MHz, MCS0, 99pc duty cycle) | WLAN | 8.42 | ±9.6 |
| 10732 | AAC | IEEE 802.11ax (80 MHz, MCS1, 99pc duty cycle) | WLAN | 8.46 | ±9.6 |
| 10733 | AAC | IEEE 802.11ax (80 MHz, MCS2, 99pc duty cycle) | WLAN | 8.40 | ±9.6 |
| 10734 | AAC | IEEE 802.11ax (80 MHz, MCS3, 99pc duty cycle) | WLAN | 8.25 | ±9.6 |
| 10735 | AAC | IEEE 802.11ax (80 MHz, MCS4, 99pc duty cycle) | WLAN | 8.33 | ±9.6 |
| 10736 | AAC | IEEE 802.11ax (80 MHz, MCS5, 99pc duty cycle) | WLAN | 8.27 | ±9.6 |
| 10737 | AAC | IEEE 802.11ax (80 MHz, MCS6, 99pc duty cycle) | WLAN | 8.36 | ±9.6 |
| 10738 | AAC | IEEE 802.11ax (80 MHz, MCS7, 99pc duty cycle) | WLAN | 8.42 | ±9.6 |
| 10739 | AAC | IEEE 802.11ax (80 MHz, MCS8, 99pc duty cycle) | WLAN | 8.29 | ±9.6 |
| 10740 | AAC | IEEE 802.11ax (80 MHz, MCS9, 99pc duty cycle) | WLAN | 8.48 | ±9.6 |
| 10741 | AAC | IEEE 802.11ax (80 MHz, MCS10, 99pc duty cycle) | WLAN | 8.40 | ±9.6 |
| 10742 | AAC | IEEE 802.11ax (80 MHz, MCS11, 99pc duty cycle) | WLAN | 8.43 | ±9.6 |
| 10743 | AAC | IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle) | WLAN | 8.94 | ±9.6 |
| 10744 | AAC | IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle) | WLAN | 9.16 | ±9.6 |
| 10745 | AAC | IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle) | WLAN | 8.93 | ±9.6 |
| 10746 | AAC | IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle) | WLAN | 9.11 | ±9.6 |
| 10747 | AAC | IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle) | WLAN | 9.04 | ±9.6 |
| 10748 | AAC | IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle) | WLAN | 8.93 | ±9.6 |
| 10749 | AAC | IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle) | WLAN | 8.90 | ±9.6 |
| 10750 | AAC | IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle) | WLAN | 8.79 | ±9.6 |
| 10751 | AAC | IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle) | WLAN | 8.82 | ±9.6 |
| 10752 | AAC | IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle) | WLAN | 8.81 | ±9.6 |

EX3DV4 - SN:7607

July 04, 2023

| UID | Rev | Communication System Name | Group | PAR (dB) | Unc ^E k = 2 |
|-------|-----|---|---------------|----------|------------------------|
| 10753 | AAC | IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle) | WLAN | 9.00 | ±9.6 |
| 10754 | AAC | IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle) | WLAN | 8.94 | ±9.6 |
| 10755 | AAC | IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle) | WLAN | 8.64 | ±9.6 |
| 10756 | AAC | IEEE 802.11ax (160 MHz, MCS1, 99pc duty cycle) | WLAN | 8.77 | ±9.6 |
| 10757 | AAC | IEEE 802.11ax (160 MHz, MCS2, 99pc duty cycle) | WLAN | 8.77 | ±9.6 |
| 10758 | AAC | IEEE 802.11ax (160 MHz, MCS3, 99pc duty cycle) | WLAN | 8.69 | ±9.6 |
| 10759 | AAC | IEEE 802.11ax (160 MHz, MCS4, 99pc duty cycle) | WLAN | 8.58 | ±9.6 |
| 10760 | AAC | IEEE 802.11ax (160 MHz, MCS5, 99pc duty cycle) | WLAN | 8.49 | ±9.6 |
| 10761 | AAC | IEEE 802.11ax (160 MHz, MCS6, 99pc duty cycle) | WLAN | 8.58 | ±9.6 |
| 10762 | AAC | IEEE 802.11ax (160 MHz, MCS7, 99pc duty cycle) | WLAN | 8.49 | ±9.6 |
| 10763 | AAC | IEEE 802.11ax (160 MHz, MCS8, 99pc duty cycle) | WLAN | 8.53 | ±9.6 |
| 10764 | AAC | IEEE 802.11ax (160 MHz, MCS9, 99pc duty cycle) | WLAN | 8.54 | ±9.6 |
| 10765 | AAC | IEEE 802.11ax (160 MHz, MCS10, 99pc duty cycle) | WLAN | 8.54 | ±9.6 |
| 10766 | AAC | IEEE 802.11ax (160 MHz, MCS11, 99pc duty cycle) | WLAN | 8.51 | ±9.6 |
| 10767 | AAE | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 7.99 | ±9.6 |
| 10768 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.01 | ±9.6 |
| 10769 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.01 | ±9.6 |
| 10770 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.02 | ±9.6 |
| 10771 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.02 | ±9.6 |
| 10772 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.23 | ±9.6 |
| 10773 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.03 | ±9.6 |
| 10774 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.02 | ±9.6 |
| 10775 | AAD | 5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.31 | ±9.6 |
| 10776 | AAD | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.30 | ±9.6 |
| 10777 | AAC | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.30 | ±9.6 |
| 10778 | AAD | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10779 | AAC | 5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.42 | ±9.6 |
| 10780 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.38 | ±9.6 |
| 10781 | AAD | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.38 | ±9.6 |
| 10782 | AAD | 5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.43 | ±9.6 |
| 10783 | AAE | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.31 | ±9.6 |
| 10784 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.29 | ±9.6 |
| 10785 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.40 | ±9.6 |
| 10786 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.35 | ±9.6 |
| 10787 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.44 | ±9.6 |
| 10788 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.39 | ±9.6 |
| 10789 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.37 | ±9.6 |
| 10790 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.39 | ±9.6 |
| 10791 | AAE | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.83 | ±9.6 |
| 10792 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.92 | ±9.6 |
| 10793 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.95 | ±9.6 |
| 10794 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.82 | ±9.6 |
| 10795 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.84 | ±9.6 |
| 10796 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.82 | ±9.6 |
| 10797 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.01 | ±9.6 |
| 10798 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.89 | ±9.6 |
| 10799 | AAD | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.93 | ±9.6 |
| 10801 | AAD | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.89 | ±9.6 |
| 10802 | AAD | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.87 | ±9.6 |
| 10803 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 7.93 | ±9.6 |
| 10805 | AAD | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10806 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.37 | ±9.6 |
| 10809 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10810 | AAD | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10812 | AAD | 5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.35 | ±9.6 |
| 10817 | AAE | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.35 | ±9.6 |
| 10818 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10819 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.33 | ±9.6 |
| 10820 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.30 | ±9.6 |
| 10821 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10822 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10823 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.36 | ±9.6 |
| 10824 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.39 | ±9.6 |
| 10825 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10827 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.42 | ±9.6 |
| 10828 | AAD | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.43 | ±9.6 |

EX3DV4 - SN:7607

July 04, 2023

| UID | Rev | Communication System Name | Group | PAR (dB) | Unc ^F k = 2 |
|-------|-----|--|---------------|----------|------------------------|
| 10829 | AAD | 5G NR (CP-OFDM, 100% RB, 100MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.40 | ±9.6 |
| 10830 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.63 | ±9.6 |
| 10831 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.73 | ±9.6 |
| 10832 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.74 | ±9.6 |
| 10833 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.70 | ±9.6 |
| 10834 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.75 | ±9.6 |
| 10835 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.70 | ±9.6 |
| 10836 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.66 | ±9.6 |
| 10837 | AAD | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.68 | ±9.6 |
| 10839 | AAD | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.70 | ±9.6 |
| 10840 | AAD | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.67 | ±9.6 |
| 10841 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 7.71 | ±9.6 |
| 10843 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.49 | ±9.6 |
| 10844 | AAD | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10846 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10854 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10855 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.36 | ±9.6 |
| 10856 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.37 | ±9.6 |
| 10857 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.35 | ±9.6 |
| 10858 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.36 | ±9.6 |
| 10859 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.34 | ±9.6 |
| 10860 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10861 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.40 | ±9.6 |
| 10863 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10864 | AAD | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.37 | ±9.6 |
| 10865 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.41 | ±9.6 |
| 10866 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10868 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.89 | ±9.6 |
| 10869 | AAE | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 5.75 | ±9.6 |
| 10870 | AAE | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 5.86 | ±9.6 |
| 10871 | AAE | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 5.75 | ±9.6 |
| 10872 | AAE | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.52 | ±9.6 |
| 10873 | AAE | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.61 | ±9.6 |
| 10874 | AAE | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ±9.6 |
| 10875 | AAE | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 7.78 | ±9.6 |
| 10876 | AAE | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 8.39 | ±9.6 |
| 10877 | AAE | 5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 7.95 | ±9.6 |
| 10878 | AAE | 5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 8.41 | ±9.6 |
| 10879 | AAE | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 8.12 | ±9.6 |
| 10880 | AAE | 5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 8.38 | ±9.6 |
| 10881 | AAE | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 5.75 | ±9.6 |
| 10882 | AAE | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 5.96 | ±9.6 |
| 10883 | AAE | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.57 | ±9.6 |
| 10884 | AAE | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.53 | ±9.6 |
| 10885 | AAE | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.61 | ±9.6 |
| 10886 | AAE | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ±9.6 |
| 10887 | AAE | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 7.78 | ±9.6 |
| 10888 | AAE | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz) | 5G NR FR2 TDD | 8.35 | ±9.6 |
| 10889 | AAE | 5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 8.02 | ±9.6 |
| 10890 | AAE | 5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 8.40 | ±9.6 |
| 10891 | AAE | 5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 8.13 | ±9.6 |
| 10892 | AAE | 5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 8.41 | ±9.6 |
| 10897 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.66 | ±9.6 |
| 10898 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.67 | ±9.6 |
| 10899 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.67 | ±9.6 |
| 10900 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10901 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10902 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10903 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10904 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10905 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10906 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.68 | ±9.6 |
| 10907 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.78 | ±9.6 |
| 10908 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.93 | ±9.6 |
| 10909 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.96 | ±9.6 |
| 10910 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.83 | ±9.6 |

EX3DV4 - SN:7607

July 04, 2023

| UID | Rev | Communication System Name | Group | PAR (dB) | Unc ^E k = 2 |
|-------|-----|---|---------------|----------|------------------------|
| 10911 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.93 | ±9.6 |
| 10912 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.84 | ±9.6 |
| 10913 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.84 | ±9.6 |
| 10914 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.85 | ±9.6 |
| 10915 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.83 | ±9.6 |
| 10916 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.87 | ±9.6 |
| 10917 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.94 | ±9.6 |
| 10918 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.86 | ±9.6 |
| 10919 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.86 | ±9.6 |
| 10920 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.87 | ±9.6 |
| 10921 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.84 | ±9.6 |
| 10922 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.82 | ±9.6 |
| 10923 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.84 | ±9.6 |
| 10924 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.84 | ±9.6 |
| 10925 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.95 | ±9.6 |
| 10926 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.84 | ±9.6 |
| 10927 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 5.94 | ±9.6 |
| 10928 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.52 | ±9.6 |
| 10929 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.52 | ±9.6 |
| 10930 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.52 | ±9.6 |
| 10931 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.51 | ±9.6 |
| 10932 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.51 | ±9.6 |
| 10933 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.51 | ±9.6 |
| 10934 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.51 | ±9.6 |
| 10935 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.51 | ±9.6 |
| 10936 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.90 | ±9.6 |
| 10937 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.77 | ±9.6 |
| 10938 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.90 | ±9.6 |
| 10939 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.82 | ±9.6 |
| 10940 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.89 | ±9.6 |
| 10941 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.83 | ±9.6 |
| 10942 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.85 | ±9.6 |
| 10943 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.95 | ±9.6 |
| 10944 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.81 | ±9.6 |
| 10945 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.85 | ±9.6 |
| 10946 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.83 | ±9.6 |
| 10947 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.87 | ±9.6 |
| 10948 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.94 | ±9.6 |
| 10949 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.87 | ±9.6 |
| 10950 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.94 | ±9.6 |
| 10951 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 FDD | 5.92 | ±9.6 |
| 10952 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.25 | ±9.6 |
| 10953 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.15 | ±9.6 |
| 10954 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.23 | ±9.6 |
| 10955 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.42 | ±9.6 |
| 10956 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.14 | ±9.6 |
| 10957 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.31 | ±9.6 |
| 10958 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.61 | ±9.6 |
| 10959 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.33 | ±9.6 |
| 10960 | AAC | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 9.32 | ±9.6 |
| 10961 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 9.36 | ±9.6 |
| 10962 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 9.40 | ±9.6 |
| 10963 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 9.55 | ±9.6 |
| 10964 | AAC | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.29 | ±9.6 |
| 10965 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.37 | ±9.6 |
| 10966 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.55 | ±9.6 |
| 10967 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.42 | ±9.6 |
| 10968 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.49 | ±9.6 |
| 10972 | AAB | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 11.59 | ±9.6 |
| 10973 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 9.06 | ±9.6 |
| 10974 | AAB | 5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz) | 5G NR FR1 TDD | 10.28 | ±9.6 |
| 10978 | AAA | ULLA BDR | ULLA | 1.16 | ±9.6 |
| 10979 | AAA | ULLA HDR4 | ULLA | 8.58 | ±9.6 |
| 10980 | AAA | ULLA HDR8 | ULLA | 10.32 | ±9.6 |
| 10981 | AAA | ULLA HDRp4 | ULLA | 3.19 | ±9.6 |
| 10982 | AAA | ULLA HDRp8 | ULLA | 3.43 | ±9.6 |

EX3DV4 - SN:7607

July 04, 2023

| UID | Rev | Communication System Name | Group | PAR (dB) | Unc ^E k = 2 |
|-------|-----|--|---------------|----------|------------------------|
| 10983 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 9.31 | ±9.6 |
| 10984 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 9.42 | ±9.6 |
| 10985 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.54 | ±9.6 |
| 10986 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.50 | ±9.6 |
| 10987 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.53 | ±9.6 |
| 10988 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.38 | ±9.6 |
| 10989 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.33 | ±9.6 |
| 10990 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.52 | ±9.6 |
| 11003 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz) | 5G NR FR1 TDD | 10.24 | ±9.6 |
| 11004 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 10.73 | ±9.6 |
| 11005 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.70 | ±9.6 |
| 11006 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.55 | ±9.6 |
| 11007 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.46 | ±9.6 |
| 11008 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz) | 5G NR FR1 FDD | 8.51 | ±9.6 |
| 11009 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.76 | ±9.6 |
| 11010 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.95 | ±9.6 |
| 11011 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.96 | ±9.6 |
| 11012 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz) | 5G NR FR1 FDD | 8.68 | ±9.6 |
| 11013 | AAA | IEEE 802.11be (320 MHz, MCS1, 99pc duty cycle) | WLAN | 8.47 | ±9.6 |
| 11014 | AAA | IEEE 802.11be (320 MHz, MCS2, 99pc duty cycle) | WLAN | 8.45 | ±9.6 |
| 11015 | AAA | IEEE 802.11be (320 MHz, MCS3, 99pc duty cycle) | WLAN | 8.44 | ±9.6 |
| 11016 | AAA | IEEE 802.11be (320 MHz, MCS4, 99pc duty cycle) | WLAN | 8.44 | ±9.6 |
| 11017 | AAA | IEEE 802.11be (320 MHz, MCS5, 99pc duty cycle) | WLAN | 8.41 | ±9.6 |
| 11018 | AAA | IEEE 802.11be (320 MHz, MCS6, 99pc duty cycle) | WLAN | 8.40 | ±9.6 |
| 11019 | AAA | IEEE 802.11be (320 MHz, MCS7, 99pc duty cycle) | WLAN | 8.29 | ±9.6 |
| 11020 | AAA | IEEE 802.11be (320 MHz, MCS8, 99pc duty cycle) | WLAN | 8.27 | ±9.6 |
| 11021 | AAA | IEEE 802.11be (320 MHz, MCS9, 99pc duty cycle) | WLAN | 8.46 | ±9.6 |
| 11022 | AAA | IEEE 802.11be (320 MHz, MCS10, 99pc duty cycle) | WLAN | 8.36 | ±9.6 |
| 11023 | AAA | IEEE 802.11be (320 MHz, MCS11, 99pc duty cycle) | WLAN | 8.09 | ±9.6 |
| 11024 | AAA | IEEE 802.11be (320 MHz, MCS12, 99pc duty cycle) | WLAN | 8.42 | ±9.6 |
| 11025 | AAA | IEEE 802.11be (320 MHz, MCS13, 99pc duty cycle) | WLAN | 8.37 | ±9.6 |
| 11026 | AAA | IEEE 802.11be (320 MHz, MCS0, 99pc duty cycle) | WLAN | 8.39 | ±9.6 |

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

F.2 Data Acquisition Electronics (DAE4 - SN:878)

Calibration Laboratory of Schmid & Partner Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
 The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Balun-SZ**
 Shenzhen, China

Certificate No: **DAE4-878_Mar23**

| CALIBRATION CERTIFICATE | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------------------------|------------------------|-------------------|------|----------------------------|-----------------------|-------------------------------|-------------|----------------------|--------|---------------------|------|-----------------------|-----------------|---------------------------|--------------------|----------------------------|------------------------|---------------------|--------------------|----------------------------|------------------------|
| Object | DAE4 - SD 000 D04 BJ - SN: 878 | | | | | | | | | | | | | | | | | | | | | | |
| Calibration procedure(s) | QA CAL-06.v30 Calibration procedure for the data acquisition electronics (DAE) | | | | | | | | | | | | | | | | | | | | | | |
| Calibration date: | March 23, 2023 | | | | | | | | | | | | | | | | | | | | | | |
| <p>This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.</p> <p>Calibration Equipment used (M&TE critical for calibration)</p> <table border="1"> <thead> <tr> <th>Primary Standards</th> <th>ID #</th> <th>Cal Date (Certificate No.)</th> <th>Scheduled Calibration</th> </tr> </thead> <tbody> <tr> <td>Keithley Multimeter Type 2001</td> <td>SN: 0810278</td> <td>29-Aug-22 (No:34389)</td> <td>Aug-23</td> </tr> <tr> <th>Secondary Standards</th> <th>ID #</th> <th>Check Date (in house)</th> <th>Scheduled Check</th> </tr> <tr> <td>Auto DAE Calibration Unit</td> <td>SE UWS 053 AA 1001</td> <td>27-Jan-23 (in house check)</td> <td>In house check: Jan-24</td> </tr> <tr> <td>Calibrator Box V2.1</td> <td>SE UMS 006 AA 1002</td> <td>27-Jan-23 (in house check)</td> <td>In house check: Jan-24</td> </tr> </tbody> </table> | | | | Primary Standards | ID # | Cal Date (Certificate No.) | Scheduled Calibration | Keithley Multimeter Type 2001 | SN: 0810278 | 29-Aug-22 (No:34389) | Aug-23 | Secondary Standards | ID # | Check Date (in house) | Scheduled Check | Auto DAE Calibration Unit | SE UWS 053 AA 1001 | 27-Jan-23 (in house check) | In house check: Jan-24 | Calibrator Box V2.1 | SE UMS 006 AA 1002 | 27-Jan-23 (in house check) | In house check: Jan-24 |
| Primary Standards | ID # | Cal Date (Certificate No.) | Scheduled Calibration | | | | | | | | | | | | | | | | | | | | |
| Keithley Multimeter Type 2001 | SN: 0810278 | 29-Aug-22 (No:34389) | Aug-23 | | | | | | | | | | | | | | | | | | | | |
| Secondary Standards | ID # | Check Date (in house) | Scheduled Check | | | | | | | | | | | | | | | | | | | | |
| Auto DAE Calibration Unit | SE UWS 053 AA 1001 | 27-Jan-23 (in house check) | In house check: Jan-24 | | | | | | | | | | | | | | | | | | | | |
| Calibrator Box V2.1 | SE UMS 006 AA 1002 | 27-Jan-23 (in house check) | In house check: Jan-24 | | | | | | | | | | | | | | | | | | | | |
| Calibrated by: | Name Dominique Steffen | Function Laboratory Technician | Signature | | | | | | | | | | | | | | | | | | | | |
| Approved by: | Sven Kühn | Technical Manager | | | | | | | | | | | | | | | | | | | | | |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. | | | Issued: March 23, 2023 | | | | | | | | | | | | | | | | | | | | |

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Glossary

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement:* Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1µV , full range = -100...+300 mV

Low Range: 1LSB = 61nV , full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| Calibration Factors | X | Y | Z |
|---------------------|-----------------------|-----------------------|-----------------------|
| High Range | 405.298 ± 0.02% (k=2) | 405.327 ± 0.02% (k=2) | 404.778 ± 0.02% (k=2) |
| Low Range | 3.99633 ± 1.50% (k=2) | 4.01474 ± 1.50% (k=2) | 3.99339 ± 1.50% (k=2) |

Connector Angle

| | |
|---|---------------|
| Connector Angle to be used in DASY system | 282.5 ° ± 1 ° |
|---|---------------|

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

| High Range | Reading (μV) | Difference (μV) | Error (%) |
|-------------------|---------------------------|------------------------------|-----------|
| Channel X + Input | 199992.86 | -1.01 | -0.00 |
| Channel X + Input | 20004.36 | 2.33 | 0.01 |
| Channel X - Input | -20000.19 | 1.55 | -0.01 |
| Channel Y + Input | 199990.97 | -3.00 | -0.00 |
| Channel Y + Input | 20002.30 | 0.50 | 0.00 |
| Channel Y - Input | -20002.49 | -0.63 | 0.00 |
| Channel Z + Input | 199987.84 | -5.63 | -0.00 |
| Channel Z + Input | 20002.39 | 0.65 | 0.00 |
| Channel Z - Input | -20003.76 | -1.68 | 0.01 |

| Low Range | Reading (μV) | Difference (μV) | Error (%) |
|-------------------|---------------------------|------------------------------|-----------|
| Channel X + Input | 2001.57 | 0.39 | 0.02 |
| Channel X + Input | 201.95 | 0.57 | 0.28 |
| Channel X - Input | -198.65 | -0.14 | 0.07 |
| Channel Y + Input | 2001.08 | -0.00 | -0.00 |
| Channel Y + Input | 201.23 | -0.01 | -0.00 |
| Channel Y - Input | -198.49 | 0.06 | -0.03 |
| Channel Z + Input | 2000.79 | -0.30 | -0.01 |
| Channel Z + Input | 200.43 | -0.88 | -0.44 |
| Channel Z - Input | -199.67 | -1.16 | 0.58 |

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| | Common mode Input Voltage (mV) | High Range Average Reading (μV) | Low Range Average Reading (μV) |
|-----------|--------------------------------|--|---|
| Channel X | 200 | 13.51 | 12.12 |
| | - 200 | -10.96 | -12.92 |
| Channel Y | 200 | 5.11 | 4.70 |
| | - 200 | -5.34 | -5.84 |
| Channel Z | 200 | -0.09 | 0.06 |
| | - 200 | -2.56 | -2.46 |

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| | Input Voltage (mV) | Channel X (μV) | Channel Y (μV) | Channel Z (μV) |
|-----------|--------------------|-----------------------------|-----------------------------|-----------------------------|
| Channel X | 200 | - | -0.37 | -3.72 |
| Channel Y | 200 | 6.78 | - | 0.63 |
| Channel Z | 200 | 10.21 | 5.27 | - |

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| | High Range (LSB) | Low Range (LSB) |
|-----------|------------------|-----------------|
| Channel X | 16025 | 16096 |
| Channel Y | 15958 | 15909 |
| Channel Z | 16045 | 13410 |

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

| | Average (μ V) | min. Offset (μ V) | max. Offset (μ V) | Std. Deviation (μ V) |
|-----------|--------------------|------------------------|------------------------|---------------------------|
| Channel X | 1.55 | 0.20 | 2.86 | 0.45 |
| Channel Y | -0.29 | -1.65 | 1.11 | 0.44 |
| Channel Z | -0.21 | -1.58 | 1.14 | 0.47 |

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

| | Zeroing (kOhm) | Measuring (MOhm) |
|-----------|----------------|------------------|
| Channel X | 200 | 200 |
| Channel Y | 200 | 200 |
| Channel Z | 200 | 200 |

8. Low Battery Alarm Voltage (Typical values for information)

| Typical values | Alarm Level (VDC) |
|----------------|-------------------|
| Supply (+ Vcc) | +7.9 |
| Supply (- Vcc) | -7.6 |

9. Power Consumption (Typical values for information)

| Typical values | Switched off (mA) | Stand by (mA) | Transmitting (mA) |
|----------------|-------------------|---------------|-------------------|
| Supply (+ Vcc) | +0.01 | +6 | +14 |
| Supply (- Vcc) | -0.01 | -8 | -9 |

F.3 2450 MHz Dipole





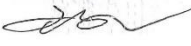
In Collaboration with
s p e a g
CALIBRATION LABORATORY




中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, Chi
 Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
 E-mail: cttl@chinattl.com http://www.chinattl.cn

Client **baluntek** Certificate No: **Z21-60171**

| CALIBRATION CERTIFICATE | | | |
|--|--|---|--|
| Object | D2450V2 - SN: 952 | | |
| Calibration Procedure(s) | FF-Z11-003-01 Calibration Procedures for dipole validation kits | | |
| Calibration date: | May 19, 2021 | | |
| <p>This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature (22±3)°C and humidity<70%.</p> <p>Calibration Equipment used (M&TE critical for calibration)</p> | | | |
| Primary Standards | ID # | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Power Meter NRP2 | 106277 | 23-Sep-20 (CTTL, No.J20X08336) | Sep-21 |
| Power sensor NRP8S | 104291 | 23-Sep-20 (CTTL, No.J20X08336) | Sep-21 |
| ReferenceProbe EX3DV4 | SN 3846 | 26-Apr-21(CTTL-SPEAG,No.Z21-60084) | Apr-22 |
| DAE4 | SN 777 | 08-Jan-21(CTTL-SPEAG,No.Z21-60003) | Jan-22 |
| Secondary Standards | ID # | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Signal Generator E4438C | MY49071430 | 25-Feb-20 (CTTL, No.J20X00516) | Feb-21 |
| NetworkAnalyzer E5071C | MY46110673 | 10-Feb-20 (CTTL, No.J20X00515) | Feb-21 |
| Calibrated by: | Name Zhao Jing | Function SAR Test Engineer | Signature  |
| Reviewed by: | Lin Hao | SAR Test Engineer |  |
| Approved by: | Qi Dianyuan | SAR Project Leader |  |
| Issued: May 24, 2021 This calibration certificate shall not be reproduced except in full without written approval of the laboratory. | | | |



In Collaboration with
s p e a g
 CALIBRATION LABORATORY

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
 Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
 E-mail: ett1@chinattl.com http://www.chinattl.cn

Glossary:

| | |
|-------|--|
| TSL | tissue simulating liquid |
| ConvF | sensitivity in TSL / NORM _{x,y,z} |
| N/A | not applicable or not measured |

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- d) KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor $k=2$, which for a normal distribution Corresponds to a coverage probability of approximately 95%.



In Collaboration with
s p e a g
CALIBRATION LABORATORY

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

Measurement Conditions

DASY system configuration, as far as not given on page 1.

| | | |
|------------------------------|--------------------------|-------------|
| DASY Version | DASY52 | V52.10.4 |
| Extrapolation | Advanced Extrapolation | |
| Phantom | Triple Flat Phantom 5.1C | |
| Distance Dipole Center - TSL | 10 mm | with Spacer |
| Zoom Scan Resolution | dx, dy, dz = 5 mm | |
| Frequency | 2450 MHz \pm 1 MHz | |

Head TSL parameters

The following parameters and calculations were applied.

| | Temperature | Permittivity | Conductivity |
|---|---------------------|----------------|----------------------|
| Nominal Head TSL parameters | 22.0 °C | 39.2 | 1.80 mho/m |
| Measured Head TSL parameters | (22.0 \pm 0.2) °C | 39.4 \pm 6 % | 1.79 mho/m \pm 6 % |
| Head TSL temperature change during test | <1.0 °C | ---- | ---- |

SAR result with Head TSL

| SAR averaged over 1 cm ³ (1 g) of Head TSL | Condition | |
|---|--------------------|--|
| SAR measured | 250 mW input power | 13.2 W/kg |
| SAR for nominal Head TSL parameters | normalized to 1W | 53.0 W/kg \pm 18.8 % (k=2) |
| SAR averaged over 10 cm ³ (10 g) of Head TSL | Condition | |
| SAR measured | 250 mW input power | 6.00 W/kg |
| SAR for nominal Head TSL parameters | normalized to 1W | 24.1 W/kg \pm 18.7 % (k=2) |

Body TSL parameters

The following parameters and calculations were applied.

| | Temperature | Permittivity | Conductivity |
|---|---------------------|----------------|----------------------|
| Nominal Body TSL parameters | 22.0 °C | 52.7 | 1.95 mho/m |
| Measured Body TSL parameters | (22.0 \pm 0.2) °C | 52.2 \pm 6 % | 1.96 mho/m \pm 6 % |
| Body TSL temperature change during test | <1.0 °C | ---- | ---- |

SAR result with Body TSL

| SAR averaged over 1 cm ³ (1 g) of Body TSL | Condition | |
|---|--------------------|--|
| SAR measured | 250 mW input power | 13.2 W/kg |
| SAR for nominal Body TSL parameters | normalized to 1W | 52.5 W/kg \pm 18.8 % (k=2) |
| SAR averaged over 10 cm ³ (10 g) of Body TSL | Condition | |
| SAR measured | 250 mW input power | 6.06 W/kg |
| SAR for nominal Body TSL parameters | normalized to 1W | 24.2 W/kg \pm 18.7 % (k=2) |



In Collaboration with
s p e a g
 CALIBRATION LABORATORY

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
 Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
 E-mail: cttl@chinattl.com http://www.chinattl.cn

Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

| | |
|--------------------------------------|----------------|
| Impedance, transformed to feed point | 54.1Ω+ 2.20 jΩ |
| Return Loss | - 27.0dB |

Antenna Parameters with Body TSL

| | |
|--------------------------------------|----------------|
| Impedance, transformed to feed point | 49.0Ω+ 3.93 jΩ |
| Return Loss | - 27.8dB |

General Antenna Parameters and Design

| | |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.068 ns |
|----------------------------------|----------|

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

| | |
|-----------------|-------|
| Manufactured by | SPEAG |
|-----------------|-------|



In Collaboration with
s p e a g
CALIBRATION LABORATORY

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

DASY5 Validation Report for Head TSL

Date: 05.19.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 952

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.788$ S/m; $\epsilon_r = 39.43$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3846; ConvF(7.45, 7.45, 7.45) @ 2450 MHz; Calibrated: 2021-04-26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn777; Calibrated: 2021-01-08
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 107.4 V/m; Power Drift = -0.04 dB

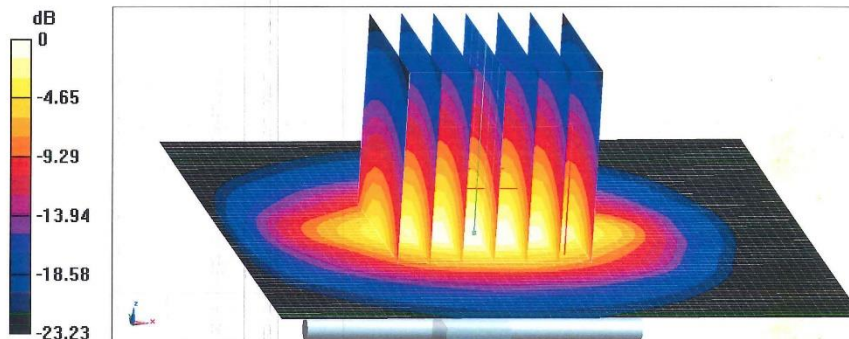
Peak SAR (extrapolated) = 28.2 W/kg

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 46.4%

Maximum value of SAR (measured) = 22.5 W/kg



0 dB = 22.5 W/kg = 13.52 dBW/kg



In Collaboration with
s p e a g
CALIBRATION LABORATORY

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

Impedance Measurement Plot for Head TSL

