



evolution wireless G4

ew 500 BOOM G4

Pro Camera Plug-on Transmitter set



The professional's choice for broadcast quality sound
Providing the highest flexibility for your video sound and field recording applications. A robust wireless microphone system that offers ultimate sound quality, simple mounting and ease of use.

The phantom power-equipped SKP 500 plug-on transmitter adapts any wired shotgun or handheld microphone for a wide range of wireless applications, from field interviews to off-camera boom work.

FEATURES

- Highly versatile solution for professional film sound: Rugged all-in-one wireless system for professional interviews and recording
- Professional sound and excellent construction quality
- Easy to use and fast setup time
- Easy and flexible wireless synchronisation between transmitter and receiver via infrared
- With 48 V phantom powering
- Up to 88 MHz bandwidth, up to 32 channels
- Range: up to 100 meters / 330 feet
- Increased RF output power (10/30/50 mW)
- Up to 8 hours of operation time

DELIVERY INCLUDES

- EK 500 G4 camera receiver
- SKP 500 G4 pro plug-on transmitter
- 4 AA batteries
- CL 1 3.5 mm jack cable
- CL 500 XLR to 3.5 mm jack adapter cable
- CA 2 camera adapter
- quick guide
- safety guide
- manufacturer declaration sheet



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PRODUCT VARIANTS

ew 500 BOOM G4-Aw+	470 - 558 MHz	Art. no. 509547
ew 500 BOOM G4-AS	520 - 558 MHz	Art. no. 509599
ew 500 BOOM G4-Gw1	558 - 608 MHz	Art. no. 509554
ew 500 BOOM G4-Gw	558 - 626 MHz	Art. no. 509601
ew 500 BOOM G4-GBw	606 - 678 MHz	Art. no. 509903
ew 500 BOOM G4-Bw	626 - 698 MHz	Art. no. 509540
ew 500 BOOM G4-Cw	718 - 790 MHz	Art. no. 509602
ew 500 BOOM G4-Dw	790 - 865 MHz	Art. no. 509603
ew 500 BOOM G4-JB	806 - 810 MHz	Art. no. 509600
ew 500 BOOM G4-K+	925 - 937.5 MHz	Art. no. 509902

SPECIFICATIONS

EK 500 G4

RF characteristics

Modulation	Wideband FM
Frequency ranges	Aw+: 470 - 558 MHz AS: 520 - 558 MHz Gw1: 558 - 608 MHz Gw: 558 - 626 MHz GBw: 606 - 678 MHz Bw: 526 - 698 MHz Cw: 718 - 790 MHz Dw: 790 - 865 MHz JB: 806 - 810 MHz K+: 925 - 937.5 MHz
Receiving frequencies	Max. 3520 receiving frequencies, adjustable in 25 kHz steps 20 frequency banks, each with up to 32 factory-pre-set channels, no intermodulation 6 frequency banks with up to 32 programmable channels
Switching bandwidth	up to 88 MHz
Nominal/peak deviation	±24 kHz / ±48 kHz
Receiver principle	Adaptive diversity
Sensitivity (with HDX, peak deviation)	< 1.6 µV for 52 dBA _{eff S/N}
Adjacent channel selection	Typically ≥ 65 dB
Intermodulation attenuation	Typically ≥ 65 dB
Blocking	≥ 70 dB

Squelch	low: 5 dBµV middle: 15 dBµV high: 25 dBµV
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Pilot tone squelch	Can be switched off
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AF characteristics

Compander system	Sennheiser HDX
Signal-to-noise ratio (1 mV, peak deviation)	Line: ≥ 110 dBA Phones: approx. 90 dBA
Total harmonic distortion (THD)	≤ 0.9 %
AF output voltage (at peak deviation, 1 kHz AF)	3.5 mm jack socket: +17 dBu (mono, balanced)
Adjustment range of audio output level	42 dB, adjustable in steps of 6 dB

Overall device

Temperature range	-10 °C to +55 °C
Power supply	2 AA batteries, 1.5 V or BA 2015 accupack
Nominal voltage	3 V battery / 2.4 V rechargeable battery
Current consumption	at nominal voltage: typ. 140 mA with receiver switched off: ≤ 25 µA
Operating time	Typically 8 h
Dimensions	Approx. 82 x 64 x 24 mm
Weight (incl. batteries)	approx. 130 g



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SPECIFICATIONS

SKP 500 G4

RF characteristics	
Modulation	Wideband FM
Frequency ranges	Aw+: 470 - 558 MHz AS: 520 - 558 MHz Gw1: 558 - 608 MHz Gw: 558 - 626 MHz GBw: 606 - 678 MHz Bw: 526 - 698 MHz Cw: 718 - 790 MHz Dw: 790 - 865 MHz JB: 806 - 810 MHz K+: 925 - 937.5 MHz
Transmission frequencies	Max. 3520 frequencies, adjustable in 25 kHz steps 20 frequency banks, each with up to 32 factory-pre- set channels, no intermo- dulation 6 frequency banks with up to 32 programmable channels
Switching bandwidth	up to 88 MHz
Nominal/peak deviation	± 24 kHz / ± 48 kHz
Frequency stability	$\leq \pm 15$ ppm
RF output power at 50 Ω	switchable: Low: typ. 10 mW Standard: typ. 30 mW High: typ. 50 mW
Pilot tone squelch	Can be switched off

AF characteristics

Compander system	Sennheiser HDX
AF frequency response	80 - 18,000 Hz
Signal-to-noise ratio (1 mV, peak deviation)	≥ 120 dBA
Total harmonic distortion (THD)	≤ 0.9 %
Max. input voltage	6 V _{eff}
Input impedance	68 k Ω , unbalanced
Input capacitance	Switchable
Setting range for input sensitivity	48 dB, adjustable in 6 dB steps

Overall device

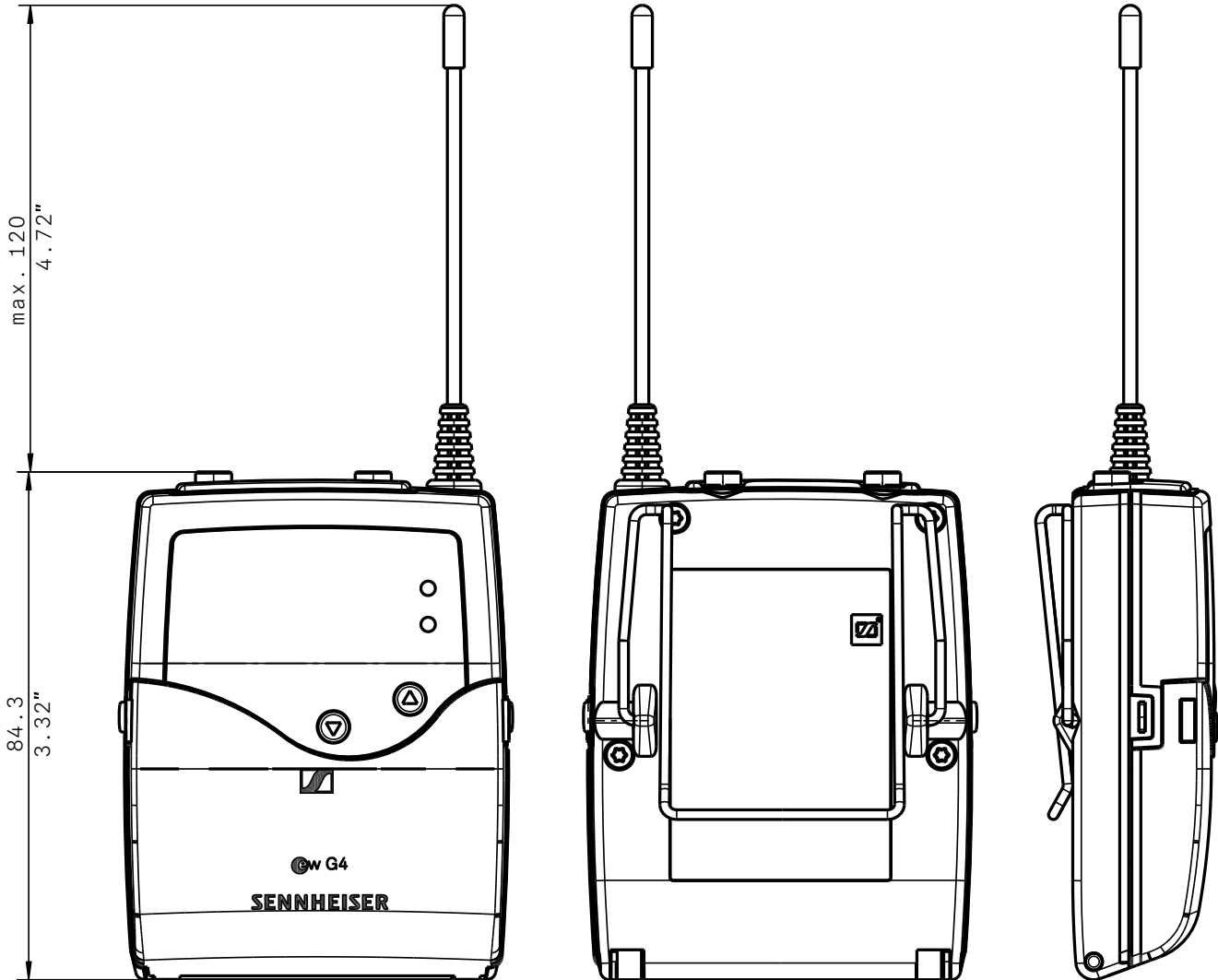
Temperature range	-10 °C to +55 °C
Power supply	2 AA batteries, 1.5 V or BA 2015 accupack
Nominal voltage	3 V battery / 2.4 V rechargeable battery
Current consumption	at nominal voltage: typ. 210 mA with transmitter switched off: ≤ 25 μ A
Operating time	Typically 8 h
Dimensions	Approx. 105 x 43 x 43 mm
Weight (incl. batteries)	approx. 195 g



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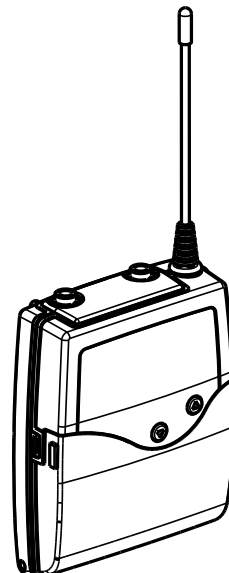
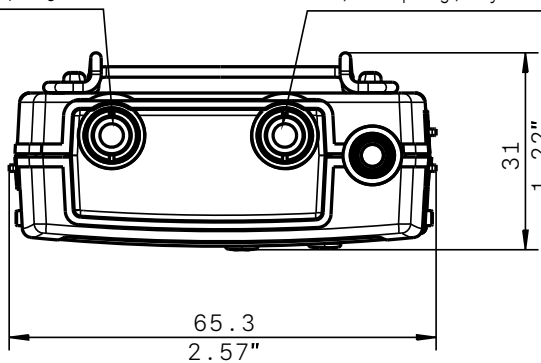
DIMENSIONS

EK 500 G4



3,5mm Klinke
3,5mm plug

3,5mm Klinke, symmetrisch
3,5mm plug, symmetrical

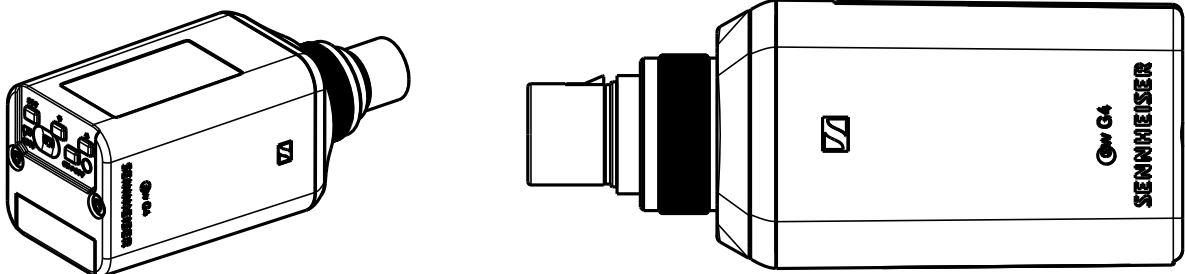
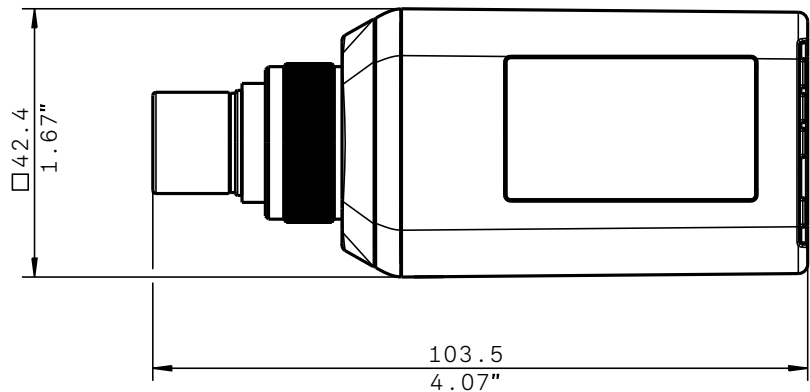
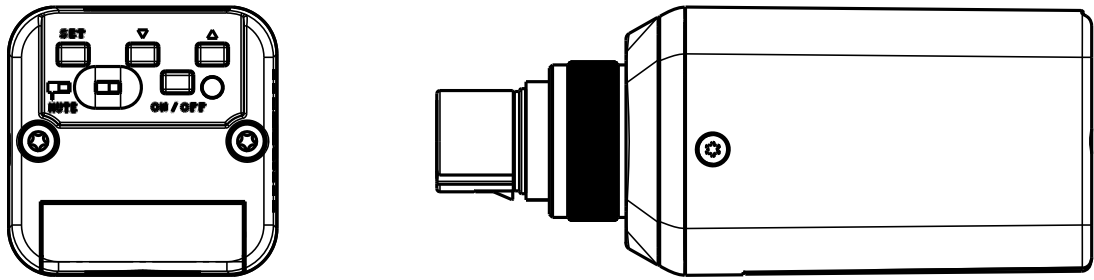
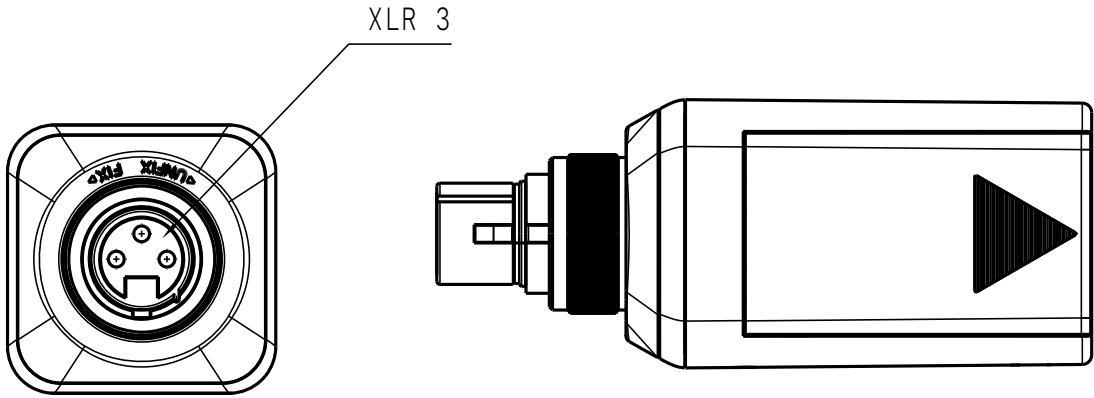




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DIMENSIONS

SKP 500 G4





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ARCHITECT'S SPECIFICATION

A wireless RF transmission system consisting of a compact camera receiver, a bodypack transmitter with a condenser clip-on microphone and a plug-on transmitter

The system shall operate within ten UHF frequency ranges, with a switching bandwidth of up to 88 MHz: 470 – 558 MHz, 520 – 558 MHz, 558 – 608 MHz, 558 – 626 MHz, 606 – 678 MHz, 626 – 698 MHz, 718 – 790 MHz, 790 – 865 MHz, 806 – 810 MHz, 925 – 937.5 MHz; receiving frequencies shall be 3520 per range and shall be tunable in 25 kHz steps. The system shall feature 20 fixed frequency banks with up to 32 compatible frequency presets and 6 user banks with up to 32 user programmable frequencies.

The receiver shall be menu-driven with a backlit LC display showing the current frequency, frequency bank and channel number, metering of RF level, metering of AF level, lock status, battery status, muting function or line output level, and pilot tone evaluation. An auto-lock feature shall be provided to prevent settings from being accidentally altered.

The receiver parameters shall either be configurable in the associated transmitter's menu and synchronized with the receiver via an integrated infrared interface or shall be programmable in the receiver menu.

The receiver shall feature a 3.5 mm audio output with a maximum output of +17 dBu (mono, balanced) and a 3.5 mm phone output.

Nominal/peak deviation shall be ± 24 kHz/ ± 48 kHz. Squelch threshold shall be defeatable (off) or adjustable to three levels: Low (5 dB μ V), Middle (15 dB μ V) and High (25 dB μ V).

The receiver shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Sensitivity shall be < 1.6 μ V for 52 dBA eff S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be ≥ 65 dB (typical). Intermodulation attenuation shall be ≥ 65 dB (typical); blocking shall be ≥ 70 dB. Signal-to-noise ratio at 1 mV and peak deviation shall be ≥ 110 dBA (line) or approximately 90 dbA (phones). Total harmonic distortion (THD) shall be ≤ 0.9 %. The audio output level shall be adjustable within a 42 dB range in steps of 6 dB.

Power shall be supplied to the receiver by two 1.5V AA size batteries or by one Sennheiser BA 2015 rechargeable accupack. Nominal voltage shall be 2.4 V, current consumption shall be typical 140 mA at nominal voltage; ≤ 25 μ A when receiver is switched off. Operating time shall be typical 8 hours. The receiver shall have a rugged metal housing; dimensions shall be approximately 82 x 64 x 24 mm (3.23" x 2.52" x 0.94"). Weight including the batteries shall be approximately 130 grams (0.29 lbs). Operating temperature shall range from -10 °C to $+55$ °C ($+14$ °F to $+131$ °F).

The receiver shall be the Sennheiser EK 500 G4.

The plug-on transmitter shall be menu-driven with a backlit LC display showing the current frequency, frequency bank and channel number, metering of AF level, lock status, pilot tone evaluation, muting function, and battery status. An auto-lock feature shall be provided to prevent settings from being accidentally altered.

Some plug-on transmitter parameters such as receiving frequency, plug-on transmitter name and pilot tone setting shall be synchronizable with the associated plug-on transmitter via an integrated infrared interface.

The plug-on transmitter shall be equipped with a mute switch, which shall be switchable between "AF on/off", "RF on/off" and "Disabled" via the user interface. The plug-on transmitter shall feature an Audio-XLR-3F connector.

Via the "PhantomPower 48V" menu item, the 48 V phantom powering for condenser microphones shall be switchable between "Active" and "Inactive".

Nominal/peak deviation shall be ± 24 kHz/ ± 48 kHz. Frequency stability shall be $\leq \pm 15$ ppm. RF output power at 50 Ω shall be switchable between 10 mW (typical, low) and 30 mW (typical, standard) and 50 mW (typical, high).

The plug-on transmitter shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Audio frequency response shall range from 80 – 18,000 Hz. Signal-to-noise ratio at 1 mV and peak deviation shall be ≥ 120 dBA. Total harmonic distortion (THD) shall be ≤ 0.9 %.

The plug-on transmitters max. input voltage shall be 6 Veff; the unbalanced input impedance shall be 6 k Ω ; the input capacitance shall be switchable. The input sensitivity shall be adjustable within a 48 dB range in steps of 6 dB.

Power shall be supplied to the plug-on transmitter by two 1.5V AA size batteries or by one Sennheiser BA 2015 rechargeable accupack. Nominal voltage shall be 2.4 V, current consumption shall be typical 210 mA at nominal voltage; ≤ 25 μ A when plug-on transmitter is switched off. Operating time shall be typical 8 hours. The plug-on transmitter shall have a rugged metal housing; dimensions shall be approximately 105 x 43 x 43 mm (4.13" x 1.69" x 1.69"). Weight including the batteries shall be approximately 195 grams (0.43 lbs). Operating temperature shall range from -10 °C to $+55$ °C ($+14$ °F to $+131$ °F).

The plug-on transmitter shall be the Sennheiser SKP 500 G4.



SENNHEISER

626 - 698 MHz

Frequenzbereich Bw / Frequency range Bw

**Zusatzinformationen für Systeme der Serie
evolution wireless 300-500 G4**

**Additional information for Sennheiser
evolution wireless 300-500 G4 systems**

DE

Für die Übertragung steht Ihnen folgender Frequenzbereich zur Verfügung:

Frequenzbereich	Bandbreite	Anzahl Frequenzen
626 - 698 MHz	72 MHz	max. 2880

Die Sender und Empfänger verfügen über jeweils 20 Kanalbänke, auf denen werksseitig Frequenz-Presets voreingestellt sind. Innerhalb einer Kanalbank sind die Frequenz-Presets untereinander intermodulationsfrei. Sie sind nicht veränderbar.

In den Kanalbänken **U1 bis U6** können Sie in 25-kHz-Schritten Frequenzen frei einstellen und abspeichern. Diese sind unter Umständen nicht intermodulationsfrei.

Die Frequenz-Presets in den Kanalbänken **1 bis 20** sind in den Tabellen auf den folgenden zwei Seiten dargestellt.

Rahmenbedingungen und Einschränkungen für die Nutzung von Frequenzen

In Ihrem Land gelten möglicherweise gesonderte Rahmenbedingungen und Einschränkungen für die Nutzung von Frequenzen.

Informieren Sie sich vor der Inbetriebnahme des Produktes unter folgender Adresse:

www.sennheiser.com/frequency-information

EN

Transmitters and receivers are available in the following frequency range:

Frequency range	Bandwidth	Number of frequencies
626 - 698 MHz	72 MHz	max. 2880

Transmitters and receivers have 20 frequency banks respectively. Each of the channels in the frequency banks has been factory-preset to a frequency. These frequency presets within one frequency bank are intermodulation-free. They cannot be changed.

The frequency banks **U1 to U6** allow the user to store individual frequencies which are freely selectable in 25-kHz steps. It might be that these frequencies are not intermodulation free.

The tables printed on the next two pages list the frequency presets in the frequency banks **1 to 20**.

Conditions and restrictions for using frequencies

There may be special conditions and restrictions for using frequencies in your country.

Before putting the product into operation, find the information for your country at the following address:

www.sennheiser.com/frequency-information

Frequenzbereich Bw / Frequency range Bw: 626 - 698 MHz

Channel	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5	Bank 6	Bank 7	Bank 8	Bank 9	Bank 10
1	626.200	630.200	638.200	646.200	654.200	662.200	670.200	678.200	686.200	694.200
2	626.600	630.600	638.600	646.600	654.600	662.600	670.600	678.600	686.600	694.600
3	627.200	631.200	639.200	647.200	655.200	663.200	671.200	679.200	687.200	695.200
4	628.400	632.000	640.000	648.000	656.000	664.000	672.000	680.000	688.000	696.000
5	629.800	633.200	641.200	649.200	657.200	665.200	673.200	681.200	689.200	697.200
6	631.400	635.600	643.600	651.600	659.600	667.600	675.600	683.600	691.600	696.475
7	632.200	637.800	645.800	653.800	661.800	669.800	677.800	685.800	693.800	686.200
8	634.200	636.900	644.900	652.900	660.900	668.900	676.900	684.900	692.900	686.750
9	637.600	632.475	640.475	648.475	656.475	664.475	672.475	680.475	688.475	687.650
10	632.650	634.125	642.125	650.125	658.125	666.125	674.125	682.125	690.125	688.300
11	633.550	634.575	642.575	650.575	658.575	666.575	674.575	682.575	690.575	689.250
12	635.300	636.475	644.475	652.475	660.475	668.475	676.475	684.475	692.475	692.550
13	639.450	626.450	626.200	626.200	626.200	673.950	681.950	689.950	697.950	626.200
14	640.150	642.100	626.750	626.750	626.750	675.900	683.900	692.000	626.200	627.050
15	644.150	645.150	627.900	627.900	627.900	678.600	687.700	693.750	626.750	628.150
16	645.850	646.750	630.950	630.950	630.950	681.050	688.850	696.800	627.900	629.850
17	647.300	649.400	654.350	632.700	632.700	685.900	690.550	697.950	630.950	630.900
18	647.800	653.200	659.800	634.750	634.750	687.050	696.100	626.200	632.700	632.250
19	653.550	657.250	661.400	641.100	638.200	687.600	696.750	626.750	634.750	634.950
20	656.600	662.700	662.500	660.200	638.850	690.100	697.850	628.700	638.850	638.500
21	658.650	666.550	667.150	675.650	645.850	691.850	626.200	631.400	639.950	640.950
22	664.000	669.050	672.300	679.900	668.200	695.300	627.750	634.850	643.700	643.900
23	668.750	671.100	681.250	682.750	672.050	626.600	630.250	643.200	646.150	646.250
24	671.200	682.300	685.350	685.450	677.000	627.700	632.950	647.050	650.800	648.450
25	679.400	682.950	689.100	687.950	696.150	629.250	636.400	651.100	654.850	651.700
26	687.300	691.500	690.850	693.000	697.250	635.450	641.200	651.750	661.850	656.750
27	689.550	692.650	694.650	697.050	628.425	643.950	642.800	659.800	667.450	669.150
28	694.150	694.350	697.500	697.700	635.525	628.200	650.800	661.350	670.100	672.050
29	696.250	658.675	632.125	633.325	669.175	632.150	632.325	629.825	676.100	675.550
30	697.100	678.175	669.225	677.375	673.500	633.925	634.575	638.025	631.925	633.875
31	641.475	679.750	674.325	681.125	690.225	634.775	635.825	645.275	673.300	642.675
32	649.925	685.100	687.650	690.025	692.000	654.800	648.050	650.250	680.975	644.575

Frequenzbereich Bw / Frequency range Bw: 626 - 698 MHz

Channel	Bank 11	Bank 12	Bank 13	Bank 14	Bank 15	Bank 16	Bank 17	Bank 18	Bank 19	Bank 20
1	630.200	654.200	678.200	630.200	638.200	646.200	654.200	662.200	630.200	638.200
2	630.600	654.600	678.600	630.600	638.600	646.600	654.600	662.600	630.600	638.600
3	631.150	655.150	679.150	631.150	639.150	647.150	655.150	663.150	631.200	639.200
4	631.850	655.850	679.850	631.850	639.850	647.850	655.850	663.850	632.000	640.000
5	632.300	656.300	680.300	632.300	640.300	648.300	656.300	664.300	633.200	641.200
6	632.900	656.900	680.900	632.900	640.900	648.900	656.900	664.900	635.600	643.600
7	638.200	662.200	686.200	646.200	654.200	662.200	670.200	678.200	654.200	662.200
8	638.700	662.700	686.700	646.700	654.700	662.700	670.700	678.700	654.650	662.650
9	639.550	663.550	687.550	647.500	655.500	663.500	671.500	679.500	655.300	663.300
10	640.550	664.550	688.550	648.150	656.150	664.150	672.150	680.150	656.150	664.150
11	641.950	665.950	689.950	649.050	657.050	665.050	673.050	681.050	657.400	665.400
12	642.750	666.750	690.750	650.400	658.400	666.400	674.400	682.400	658.350	666.350
13	647.000	671.000	695.000	662.450	670.450	678.450	686.450	694.450	678.450	686.450
14	649.450	673.450	697.450	663.550	671.550	679.550	687.550	695.550	678.950	686.950
15	650.100	674.100	694.425	664.950	672.950	680.950	688.950	696.950	681.900	689.900
16	651.400	675.400	695.725	666.800	674.800	682.800	690.800	626.200	683.200	691.200
17	653.000	677.000	626.200	668.800	676.800	684.800	692.800	626.950	685.050	693.050
18	653.900	677.900	626.850	669.800	677.800	685.800	693.800	629.000	685.750	693.750
19	658.000	682.550	627.750	671.400	679.400	687.600	695.400	630.600	687.100	695.100
20	662.500	687.050	628.850	672.250	681.550	688.350	696.250	632.400	688.850	696.850
21	663.600	692.050	630.300	673.450	683.450	691.700	697.450	633.900	689.400	697.400
22	667.600	693.250	632.350	675.350	684.200	692.900	626.450	636.300	691.300	626.200
23	671.800	696.050	634.250	683.000	688.650	693.750	627.950	637.500	692.900	627.350
24	681.550	697.550	638.900	686.500	691.950	697.900	632.450	639.650	693.950	629.000
25	684.700	628.000	644.050	691.050	694.400	626.250	634.350	640.650	697.200	644.500
26	688.050	628.750	648.050	691.800	695.600	626.975	642.650	670.550	697.950	653.650
27	689.500	632.700	650.300	694.950	628.500	628.575	643.400	673.550	640.400	657.600
28	695.200	626.225	652.800	696.750	626.575	631.225	646.150	684.300	665.450	671.150
29	697.850	631.875	655.950	626.925	629.675	638.025	661.450	690.950	626.325	681.500
30	626.675	638.025	628.425	633.675	635.875	640.425	626.875	627.875	632.475	626.625
31	628.725	641.175	635.525	636.425	641.675	653.025	628.675	634.675	636.575	629.975
32	658.675	685.325	646.825	643.875	645.475	684.175	633.575	638.225	638.925	646.975