



AUDIO Digital Transmitter A10-TX-US User Guide

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— User Guide —



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7 Century Court, Tolpits Lane, Watford WD18 9RS, UK | info@audioltd.com

Revision	Date	Description
1A	Dec 2017	Initial Publication
1B	Feb 2018	Added note re: Bluetooth remote range
1C	Apr 2018	Edits made in sections: Specifications and Certifications
1D	May 2018	Added v1.05 change (i.e. Orientation setting)
1E (2A)	July 2018	Added v2.00 information about new recording feature
2B	Nov 2018	Added v2.50 change (i.e. User Groups)
3A	June 2018	Added v2.70 changes (Mute Button and Mute function)
3B	Jan 2020	Added v2.80 changes (i.e. Locking/Power button changes)
3C	Mar 2020	Updates for v2.90 (New RF overload indicator, conform to CSV)

A10-TX-US User Guide

Overview

The A10 Digital Wireless System meets the demanding requirements of the professional sound community engaged in film and television production. It offers superb audio and RF performance.

The digital RF transmission of the A10 system allows the user to operate up to 20 channels in an 8 MHz TV channel, maximising spectrum efficiency without compromising on range, audio quality or latency.

The A10-TX-US is the U.S.-only version of the transmitter. It incorporates Audio Ltd's proprietary digital modulation scheme whilst maintaining the high audio quality that Audio Ltd has become renowned for, and with extremely low end-to-end latency of 2 mS.

The A10-TX-US has an intuitive menu system allowing the user to become familiar with settings within a few minutes of turning it on.

The A10-TX transmitter offers a universal audio input accepting two-wire lavalier microphones, balanced microphones (selectable 12V or 48V phantom power), and balanced line-level signals. It includes an integrated digital recorder with a precision timecode generator (recording not available with lavalier microphones in U.S.

market transmitters). An internal microSD card in the transmitter stores audio data in proprietary MIC format. The free Mic-to-WAV utility for Mac OS and Windows converts MIC files into industry-standard broadcast WAV files with timecode.

Key Features

- Low-noise, studio-grade balanced input for microphones and line level signals with analogue limiter and phantom power.
- Fully digital RF transmission
- Integrated digital recorder with precision timecode generator (for Mic / Line-level operations)
- Remote controllable over Bluetooth® using the A10-TX-US Remote app for Android and iOS.
- Powered by easy-to-access AA batteries.

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System Quickstart

The A10 Digital Wireless System is easy to use. Follow the steps below for basic setup and operation.

At the Receiver

1. Fit the included straight and right-angled antennas to the A10-RX receiver.
2. Connect the receiver to a power source. It will immediately power on.
3. Using the scanning tool in the Selection menu find an available open frequency. If multiple wireless systems are in use, make certain to keep frequencies least 400 kHz apart.
4. Connect the audio output from channel 1, channel 2, or both to an audio input on a mixer, recorder, camera, or PA system.
5. Ensure that the receiver audio output type and level are set based on the input type.

At the Transmitter

1. Attach the straight antenna to the A10-TX-US.
2. Attach an audio source to the 3-pin LEMO input connector.
3. Insert AA batteries into the A10-TX-US battery compartment and power on the unit with the red On/Off button.
4. Set the audio input type to set to match the connected input.
5. Set the transmitting frequency on the A10-TX-US match the frequency set on the A10-RX receiver channel.
6. Adjust the audio gain according to your environment and source, taking care not to overload the signal. This is indicated by a red LED.

At the Receiver

1. Confirm that the blue channel power LED is solid blue.
2. Confirm that the RF status LEDs and display indicate good RF strength on both antennas.
3. Confirm that the audio level at the receiver corresponds to the audio connected to the A10-

TX-US input.

4. The system is now ready for use.

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Connectors, Controls Description

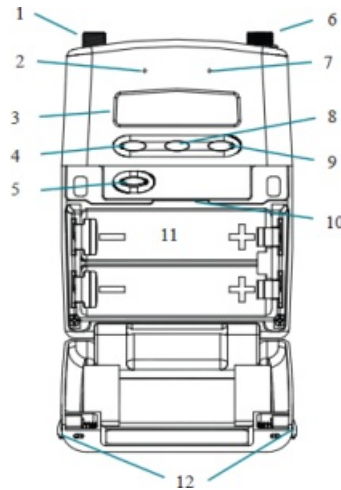


Figure 1: A10-TX-US transmitter with open battery compartment

1. – **Antenna Socket** SMA connector, 50 ohm, connects to included 1/4-wave whip antenna.
2. – **Power LED** Blue LED illuminates when unit is powered on. Flashes when unit is in sleep mode. LED can be turned off in the Menu.
3. – **Display** OLED screen. Screen automatically turns off during operation for battery savings.
4. – **Left Button** Moves selection in menu to the left, or decrements values. When Mute Button option is On, press and hold to mute/unmute.
5. – **Power Button** Press to power on the unit. Press and hold to power down the unit. Press and hold while holding Right button to lock/unlock the unit.
6. – **Audio Input** Connector Balanced LEMO-3 connector. Accepts multiple audio input types including unbalanced lavalier, balanced microphone, balanced line. Also used for timecode input and output.
7. – **Input Overload** LED Red LED illuminates when input signal is 3dB before clipping.
8. – **Menu Button** Enters the menu selection. Also used to select options in the menu.
9. – **Right Button** Moves menu selection to the right, enters record status screen, or increments values.
10. – **microSD Card Slot** The card slot is used to record files and load firmware updates on the unit.
11. – **Battery Tray** Accepts two AA LR6 batteries.
12. – **Battery Door** Latch Press both latches to open the battery door.

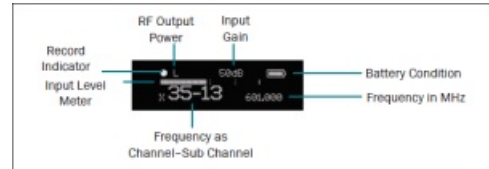
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Powering

The A10-TX-US is powered by two AA (LR6) batteries. For the longest runtime use Lithium primary cells. The transmitter also accepts alkaline primary and Nickel Metal Hydride rechargeable batteries. Select the battery type used in the menu to ensure that the battery condition is indicated accurately in both the transmitter display and receiver.

1. Open the battery compartment by pressing both mechanical releases simultaneously. (See Figure 1.)
2. Insert two fresh AA type (LR6) batteries. Note correct battery polarity.
3. Momentarily press the red On/Off button. The blue power LED will light and the display will illuminate. The transmitter is now powered on.
4. To turn the transmitter off, press and hold the red button until the “turning off” progress bar completes and the unit goes dark.

Main Display



After powering on the A10-TX-US the display shows the following.

- RF Output Power – three power levels are indicated, Low (10 mW), Medium (20 mW), High (50 mW)
- Input Gain – gain applied to the input source, in dB
- Battery Condition – shows the battery voltage level of the transmitter batteries, five segments
- Frequency in MHz – the transmitting frequency is shown
- Frequency in ChannelSub Channel – the transmitting frequency is shown in region, channel, and sub channel
- Input Level Meter – shows audio input signal level
- Record “dot” Indicator – flashes in top left corner when recording is underway. The record feature is not available for Lavalier operations. For more information, see Recording.

Press the Left button, to view the name of the transmitter. The serial number of the transmitter is the default name of the transmitter. The transmitter name can be changed in the A10-TX-US Remote app.

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From the main screen on the transmitter, pressing the Right button shows record status information, such as file name (when recording), file duration, remaining record time, timecode values, and frame rate. Record status information is unavailable for Lavalier operations.




Menu Control and Menu Selections





The A10-TX-US transmitter is controlled through its menu. Enter the menu via the centre Menu button. Once in the menu the Left and Right buttons toggle among options, and the Menu button makes the selection.

The Menu Lock feature on the A10-TX provides a way to lock the buttons. Press and hold the Power button while holding the Right button to lock/unlock access to menu settings. When menu access is locked, a Lock icon (shown right) appears in the main display. When locked, the Power button remains active.








Main Menu

Selecti ons	I c o n	Description	Options
Exit		Returns to the main display screen.	
Frequ ncy Sel ection		Sets the transmitter's frequency. Frequency selection and channel increments change based on the region of operation the unit is set.	<ul style="list-style-type: none"> • TV Channel Increments • Sub Channel Increments • Frequency Increments in 25 kHz steps
Audio Gain		Controls the gain range of the audio input. Gain range is input type dependent. Gain control is in 1 dB increments.	<ul style="list-style-type: none"> • Lavalier: 0 dB to +40 dB • Line setting: -10 to 16 dB • Mic setting: 16 to 40 dB w/20dB pad • Mic setting: 36 to 60 dB







Audio Setup		Enters the Audio Setup sub-menu.	<ul style="list-style-type: none"> • Low Cut • Limiter • Lav / Mic / Line • Mute Button
Record / TC		Enters the Record / TC sub-menu.	<ul style="list-style-type: none"> • Record • File Info • TX / Record Mode • Timecode • Frame Rate
		<p>♦ Timecode and Frame Rate are the only options available for Lavalier operations.</p>	
Privacy		<p>Activates transmission privacy with a four-number key set on the transmitter and receiver. When active, the receiver must be set to the corresponding key for audio to pass.</p> <p>New Key option generates a key. The key symbol is displayed on main default screen when privacy is active.</p>	<ul style="list-style-type: none"> • New Key – generates new key • Off – encryption cleared, set to —, not active
Settings		Enters the Setting sub-menu.	<ul style="list-style-type: none"> • Bluetooth • RF Power • Brightness • Battery Type • Blue LED • TV Ch Map

System		Enters the System sub-menu.	<ul style="list-style-type: none">• Sleep• Lock Menu• Set Time/Date• Format Card• Restore• Info• Update Firmware
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Audio Setup Menu







Selections	Icon	Description	Options
Exit		Returns to the main menu.	
Low Cut		Activates a low frequency cut filter to the audio input. 18 dB/octave.	<ul style="list-style-type: none"> • Off • 40 Hz • 60 Hz • 80 Hz • 100 Hz • 200 Hz
Limiter		The limiter reduces peak levels of the analogue audio input before digital conversion to prevent audio overload. The recommended setting is On.	<ul style="list-style-type: none"> • On • Off
Lav / Mic / Line		Selects the input type at the LEMO-3 connection. ♦ For Mic/Line, the AC-BAL-XLR accessory is required.	<ul style="list-style-type: none"> • Lav • Mic • Line • P48 – mic level with 48 V phantom • P12 – mic level with 12 V phantom
Mute Button		Enables or disables mute button shortcut.	<ul style="list-style-type: none"> • On – Transmitter mute can be toggled on or off by holding Left or Right button for 1 second. • Off – Shortcut is disabled.


Record / TC Menu

Select ions	I c o n	Description	Options
Exit		Returns to the main menu.	
Record *		Select Record to enter Record mode (This begins recording). The Record status is remembered across sleep and power cycles.	
File Info		Shows important information about the file being recorded.	<ul style="list-style-type: none"> • Time Elapsed • Time Remaining • Timecode • File Name
TX / Record Mode *		Select the operational mode of the A10-TX.	<ul style="list-style-type: none"> • TX/Rec – simultaneous wireless transmission and recording • RecOnly – recording function only
Timecode		<p>Enter Timecode menu. Timecode values from either the attached external timecode generator or the internal generator are shown.</p> <p>◆ Whilst in this menu, wireless transmission is suspended, and timecode may be sent via AC TCBNC-OUT or AC-TCLEMO accessories.</p>	<ul style="list-style-type: none"> • Time of Day • External • Jam – applies external timecode to the internal generator. <p>◆ Jamming to an external timecode source requires the AC-TCBNC-IN or AC-TCLEMO accessories.</p>
Frame Rate		Sets the frame rate of the timecode clock. Select a rate that matches the incoming timecode rate. ◆ Rejam is required after setting frame rate.	<ul style="list-style-type: none"> • 23.98 • 24 • 25 • 29.97 • 29.97 DF • 30 • 30 DF





These options are only available when Audio Setup > Lav / Mic / Line is set to Line or Mic level options. They are not available for Lavalier operations.

Settings Menu



Selecti ons	lc on	Description	Options
Exit		Returns to the main menu.	
Blueto oth		Toggles Bluetooth On or Off. Bluetooth offers external control of the A10-TX via the A10-TX Remote App (for iOS or Android).	<ul style="list-style-type: none"> • On • Off
RF Po wer		Sets the RF output power of the transmitter.	<ul style="list-style-type: none"> • Low – 10 mW • Med – 20 mW • High – 50 mW
Battery Type		For accurate display of battery condition on the transmitter and receiver select the battery type from the available options.	<ul style="list-style-type: none"> • Alkaline • NiMH • Lithium
User G roups		Sets whether transmitter utilizes user groups (User) or manual frequency selection (Factory).	<ul style="list-style-type: none"> • User – Use • User – Load New • Factory
TV Ch Map		Selects the TV channel spacing in MHz to ensure channel selection corresponds to a specific geographic region. See frequency chart.	<ul style="list-style-type: none"> • X – 6 MHz • Y – 7 MHz • Z – 8 MHz







Display		Enters the Display sub-menu.	<ul style="list-style-type: none"> • Brightness • Blue LED • Orientation
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Display Sub-Menu

Selecti ons	Ic on	Description	Options
Exit		Returns to the main menu.	
Brightn ess		Sets the brightness of the OLED screen	Five increments, 1–5, 5 is brightest
Blue L ED		If set to On, the LED illuminates blue when powered on and screen saver is active.	<ul style="list-style-type: none"> • On • Off
Orienta tion		Sets orientation of display — ideal for when transmitter is attached upside down on boom pole.	<ul style="list-style-type: none"> • Normal (default) • Flipped

System Menu

Sele ctio ns	I c o n	Description	Options
Exit		Returns to the main menu.	
Slee p		When selected, the A10-TX goes into low-power Sleep mode. The blue LED flashes when the unit is in a sleep state. The unit returns to normal power operation when any button is pressed or the transmitter is activated from the A10-TX Remote App.	<ul style="list-style-type: none"> • Sleep

Lock Menu		Activates a button lock to prevent unintentional changes to menu selections.	<ul style="list-style-type: none"> • Unlock • Lock
Set Time / Date		Sets the time and date of the realtime clock.	
Format Card		Deletes all files and data present on the inserted microSD card.	OK – begins formatting process.
Restore		The restore function allows the user to reset the A10-TX to the factory default settings.	
Info		Shows numerous attributes of the transmitter.	<ul style="list-style-type: none"> • Serial Number • Firmware Revision • Frequency Band
Update (Firmware)		Updates the firmware of the transmitter using a firmware .PRG file on the microSD card.	

Basic Operation

Frequency Selection

The A10 Digital Wireless System available in the operates in the UHF frequency band from 470 to 608 MHz.

There are two models of the A10-TX-US transmitter to cover this frequency range.

Multiple A10 Digital Wireless systems can be used simultaneously on nearby adjacent frequencies without worry of intermodulation interference since the A10 Digital Wireless System and its digital RF transmission is inherently immune to intermodulation. Systems can be used together when separated by at least 400 kHz. Use the scan tool on the A10-RX receiver to search for available frequencies.

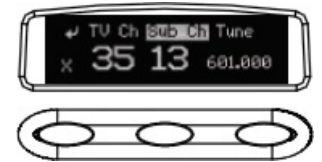
When using A10 Digital Wireless systems in conjunction with analogue RF systems, an intermodulation plan needs to be addressed for analogue receivers.

Channel, Sub Channel, Frequency

To simplify frequency selection, frequencies are divided into channels and sub channels.

- Channel – corresponds to broadcast television channels used in geographic region.
- Sub Channel – channels are divided in 400 kHz increments called sub channels to speed up frequency selection. The number of sub channels depends on the channel mapping selected.
- Tune – specific frequencies within the transmitter's tuning range can be selected in 25 kHz increments.

To change TV channels, use the Left button to highlight the TV Channel. Press the centre Menu button to select the TV channel. Select the sub channel until the desired sub-channel is selected.



See the Frequency Tables in this guide for a complete list of frequencies corresponding to the channel and sub channel selections.

Audio Input and Control

The A10-TX-US input accepts a wide range of audio input types, including lavalier microphones, balanced microphones, and balanced and unbalanced line level signals. 12 V and 48 V phantom power is available for balanced microphones. The Selection Menu offers options for audio level control, input type, limiters, and low cut filter.

Lavalier Microphones Unbalanced lavalier microphones wired in two-wire mode, are directly compatible with the A10-TX-US input. When connected, the A10-TX-US auto-detects the presence of a lavalier microphone.

Balanced Microphones with Phantom Balanced microphones, including phantom powered shotgun microphones, can be connected to the A10-TX-US. 12 V and 48 V phantom power are available for microphones requiring it. For microphones that can properly operate on 12 V phantom, such as the Schoeps CMT, select 12 V phantom to significantly increase battery runtime.

Line-Level Sources

Wireless systems are often used as “camera hop” systems. For most camera hop applications the output of a field mixer is connected to a wireless transmitter. The wireless receiver output is connected to the camera input. The line level input selection simplifies using the A10 System as a camera hop. Select Line in the Selection Menu to accept balanced or unbalanced line level inputs.

To connect balanced microphone or line level sources to the A10-TX-US a cable wired as described in the specifications or the AC-BALXLR cable is required. This connects the shell of the LEMO connector to pin-1 of an XLR connector.

Audio Level Control

Input levels are controlled from the Audio Gain option in the Selection Menu. The gain range available is source-dependent as follows:

- Lavalier setting: 0 dB to 40 dB, 1 dB increments
- Line setting: -10 to 16 dB, 1 dB increments
- Mic setting (with 20 dB pad): 16 to 40 dB, 1 dB increments
- Mic setting (with no pad): 36 to 60 dB, 1 dB increments

Set input levels so that the limiter is active only on the strongest peaks.

Mute Button

When the Mute Button function is enabled, holding the Left button for 1 second toggles Mute on or off. While Muted, the transmitter LED flashes red. The paired Receiver channel display Muted on the channel screens. Audio is muted at the transmitter input, this means both recorded and transmitted audio will be silent.

Antenna

The SMA antenna connector is used to mount the included 1/4-wave whip antenna. The use of any other type is forbidden.

For best operation and transmission power with the included 1/4-wave antenna keep it in the free field. If worn on a body keep the antenna away from direct contact with the wearer's body.

Recording On the A10-TX-US, the record feature is only available for line and mic-level operations. It is intended for wireless boom and remote microphone locations that do not require a two-wire lavalier. When the A10-TX-US auto-detects the presence of a lavalier microphone, recording is disabled. The A10-TX-US incorporates a data recorder that stores encoded digital waveform and timecode data in proprietary, data-compressed binary MIC files. Files recorded on the A10-TX-US are not sound files and require conversion using Audio Ltd's Mic2Wav application. (For more information, see "File Conversion MIC to WAV"). After conversion, a usable 48 kHz digital audio WAV file is made. Files recorded in the A10-TX-US are approximately 1/3 the size of WAV files generated from corresponding MIC files, saving valuable space on the microSD card. Files have a maximum duration of six hours. After six hours the file is automatically split into another recording. Resulting WAV files are sample accurate across file splits.

To begin recording on the A10-TX-US:

1. Ensure Menu > Audio Setup > Lav/Mic/Line is set to either Mic or Line options.
2. Select Menu > Record/TC > Record. Recording can also be initiated from the A10-TX Remote App. The default file name of the MIC file is the serial number of the A10 transmitter; however, the file name may be renamed via the A10-TX Remote app. For more information, see Remote Control.

A Record "dot" indicator flashes in the display to show that the A10-TX-US is recording. This indicator is also shown on the A10-RX, when paired with the A10-TX-US, in the TX Data screen.

File Storage

Proprietary MIC files generated by the A10-TX-US are stored on FAT32-formatted microSD cards. The microSD card slot is located in the battery compartment and is accessed by removing the battery nearest the display. If no microSD card is inserted in the unit, a 'No card detected' message is indicated. New cards, or cards with material that can be overwritten, can be formatted in the A10-TX-US. ^a Formatting deletes all existing recordings present on the card. There is no provision to manage files from the A10-TX-US. File management, including file renaming and individual file deletion, is done when the microSD card is mounted to a computer via a card reader.

File Conversion MIC to WAV

The MIC files generated directly on the A10-TX-US are not usable until converted. Audio Ltd. provides a free Mic2Wav conversion utility, available for download from the Audio Ltd. website: www.audioltd.com. This utility—available for Mac or Windows operating systems—converts MIC files to usable Broadcast WAV files. ^a Mac operating systems need to be in 24-hour time to correctly reflect timecode values.

Enter macOS System Preferences (/Language & Region/Time format) and change to 24 hour format.

Timecode and Time-of-Day Clocks

The A10-TX-US includes high-precision internal clocks to maintain time-of-day/date and SMPTE timecode. These clocks run continuously when AA batteries are in the unit and draw negligible current (less than 1 uA). The A10-TX-US design incorporates a supercapacitor to power the time-of-day clock for several days in the absence of batteries. The supercapacitor reaches full charge when batteries have been in the unit for five minutes.

Time-of-Day Clock The time and date clock holds time and date for files recorded on the A10-TX-US, and can be used for the Time of Day timecode value.

To set time and date:

1. Enter the Selection Menu option real time clock. (Menu > System > Set Time/Date)
2. Use the center Menu button to move between year, month, day, hours, and minutes. Use the Left and Right buttons to change the values.
3. Press the center Menu button to select the Return arrow and view current values. Press again to exit.

External LTC Jamming

External LTC timecode can be applied to the A10-TX-US to synchronize its internal timecode clock. Synchronization of timecode clocks is called “jam syncing”. To jam the A10-TX-US timecode clock, navigate to Menu > Record/TC > Timecode in the Selection menu. Connect an LTC timecode source to the 3-pin LEMOTM input connector using either the AC-TCLEMO or AC-TCBNC-IN cables. The A10-TX-US will jam its timecode clock from the incoming timecode signal.

While in the Timecode menu, RF transmission and recording are deactivated on the A10-TX-US. The timecode clock remains accurate when the transmitter is powered or in standby mode. When the unit is powered down accurate timecode is held for six hours. After six hours the timecode clock is reset to its default value. Timecode Output The transmitter’s 3-pin LEMO connector also functions as a timecode output connection. In the Selection menu navigate to Menu > Record/TC > Timecode. While in this screen, timecode can be sent out of the A10-TX-US using the AC-TCLEMO or AC-TCBNC-OUT cables. Upon exiting the Timecode screen, the 3-pin LEMO reverts back to the selected lavalier, microphone, or line input. RF transmission is reactivated, and recording is available for mic or line inputs.

Remote Control

The A10-TX-US can be remotely controlled from an Android or iOS device running the A10-TX Remote app. The app is available as a free download from the Google Play store and iOS App store, respectively.

The app appears differently depending on the audio source used with the transmitter. When the A10-TX-US transmitter is connected to line or mic-level sources, with the A10-TX Remote app, you can:

1. Change the transmitter’s name; it is set
2. Monitor Sleep status, Battery status, Bluetooth signal strength, Record status and Mute Status Touch the Circle-I icon to send identification signal to the transmitter.
3. Turn Sleep mode On/Off
4. Mute/Unmute the Transmitter
5. Start/Stop recording at the transmitter to the transmitter’s serial number by default. When a user group is loaded, the selected
6. Adjust Gain user name appears as here.
7. Set the low-cut filter
8. Adjust RF Power
9. Change TV Ch, Sub Ch and Frequency

When a user group is loaded, the TV Ch...Frequency section changes to User, displaying the current user name between + / – Selection buttons.



The recording features are unavailable on the A10-TX Remote app when using lavaliers, as shown in the following images.



When the A10-TX-US transmitter is connected to a lavalier, with the A10-TX Remote app, you can:

1. Change the transmitter's name; it is set to the transmitter's serial number by default
2. Monitor Sleep status, Battery status, Bluetooth® signal strength and Mute status
 - ^a When a user group is loaded, the TV Ch...Frequency section changes to
3. Turn Sleep mode On/Off User, displaying the current user name
4. Mute/Unmute the Transmitter
5. Adjust Gain between + / – Selection buttons, as shown below:
6. Set the low-cut filter
7. Adjust RF Power
8. Change TV Ch, Sub Ch and Frequency

Touch the unit name (left image) to access more information (image on right) about the transmitter.

^a The Bluetooth operational range is very short. Maintain close proximity to the transmitter for reliable connection.

User Groups

The User Groups feature allows for the easy, intuitive naming of specific frequencies for each A10 transmitter used on set, and grouped together for faster tuning. The operator of an A10 receiver may then easily switch between transmitters by choosing alphanumeric names, such as “Jack” and “Jill”, instead of having to remember and manually tune to different, specific numerical frequencies.

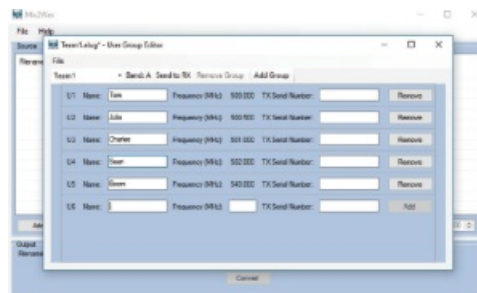
For instance, a producer or director may want to monitor several different actors' wireless transmitters. Rather than having to keep a list of all of their frequencies, each transmitter may be pre-assigned a frequency and given an actor's name. Then only those pre-assigned frequencies that have been named will be available as possible options for tuning. User groups are created in Mic2Wav—a utility application available as a free download from the

Audio Ltd. website to Mac or Windows-based computers—and then uploaded, as ALUG files, to A10 transmitters and receivers.

To create a new user group:

1. Open Mic2Wav on your computer.
2. Do one of the following:
 - On a Mac, select User Group File > New.
 - On a PC, select File > User Groups > Create a new file.
3. Name the new group.
4. Select a range of frequencies via the Band drop-down list. Options include A, B, C, D and Any. This will automatically restrict users in the group to the frequencies within that band. Selecting Any will make frequencies within all bands available for assignment to users in the group.

All A10-TX will have the available bands listed on the printed label inside the battery compartment door as well as displaying the frequencies capable of being generated by the transmitter in Menu > System > Info.
5. Select OK. The User Group Editor screen appears with fields for the first user (U1) available.
6. Enter a Name and Frequency for U1 in the fields provided. The A10-TX transmitter's serial number is optional. Entry of ineligible frequencies (or characters) will cause the text in the field to appear red. Mic2Wav will automatically fills in .000 as the subchannel variable for frequencies entered as a whole number. Mic2Wav automatically follows the best-practice method of spacing adjacent transmitters by at least one subchannel, preventing possible interference from other transmitters.
7. Click Add (on a PC) –or the Plus (+) button on a Mac– to add the user to the group. This also adds a new line for the next user (U2, U3, etc). Each user in a group can be given a name and frequency, which after upload, will then be displayed on A10 receivers and transmitters. Each group can have up to 32 users.



Mic2Wav supports the creation of up to eight user groups, each with a max of 32 users, per Audio Limited User Group (ALUG) file.

To add additional user groups:

1. In Mic2Wav, select Add Group.
2. Name the new group and select the band of frequencies for the group.
3. Add users (defining name and frequencies) to the group. Audio Limited User Group files (ALUG) may be saved for future use and modification. When saving the ALUG file, Mic2Wav will default the file name to the first user group name in the drop-down list.

To load an ALUG file into Mic2Wav:

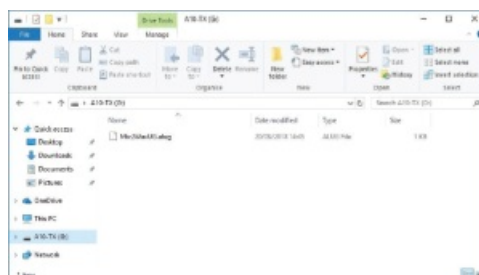
1. In Mic2Wav, select User Group File > Open.
2. Choose an ALUG file on your computer.

To remove a user group:

1. In Mic2Wav, select a user group in the drop-down list.
2. Select Remove Group. Sending and Loading User Groups onto A10 Transmitters A user group is sent to the A10-TX via the microSD card inserted into the transmitter.
 - ^a For instructions on sending a user group to A10 receivers, see the A10-RX User Guide or A10-RACK User Guide.

To send a user group to an A10-TX:

1. Insert a microSD card into the transmitter and select System > Format Card > OK.
2. Remove the microSD card from the transmitter and insert it into your computer.
3. Drag and drop the entire ALUG file to the microSD card.



- ^a Loading an ALUG file onto the card from the Mic2Wav application will only save the user group currently selected in the drop-down list.
4. Eject the microSD card and insert it back into the transmitter.
 5. Press the centre Menu button, then select Settings > User Groups > User > Load New.
 6. Select a user group.
 - ^a With a user group loaded, the transmitter's Frequency control changes between different users in the group and their pre-assigned frequencies.

To dial in a specific user (and its frequency):

1. Press the center Menu button on the transmitter.
2. Select Frequency.
3. Press the Left or Right button to select one of the user names.

The frequency will appear along with the name and user number (1-32).

^a While in User mode, no non-user group frequencies will be selectable. To revert back to manual frequency selection, set mode to Factory (Menu > Settings > User Groups > Factory.)

Firmware Updates

Audio Ltd. issues new firmware for the A10-TX-US transmitter to change and introduce new features to the unit. Make certain to register your Audio Ltd. product at the Audio Ltd. website to receive firmware update notifications.

To update firmware:

1. Download the new firmware update file from the Audio Ltd. website and copy the file onto an approved microSD card that has been formatted in the A10-TX-US.
2. Insert the microSD card in the unit.
3. Insert fresh AA batteries in the unit.
4. Enter the System menu and choose Update. The unit will indicate the revision of firmware to update.
5. Confirm that you want to update.
6. Verify the revision of firmware on the unit.

Conform to CSV

When using the record feature on the A10-TX, Mic2Wav will convert MIC files to WAV using a CSV sound report from a Sound Devices 8-Series, 6-Series or MixPre Series mixer-recorder. WAV files will be split automatically based on timecode values. Mic2Wav will add bEXT metadata like Scene, Take, Tape and more. Mic2Wav can conform multiple MIC files from multiple A10-TX transmitters to a single CSV file.

To Conform MIC files to CSV

1. Install Mic2Wav v2.90 or higher
2. Import the MIC files to Mic2Wav.
3. Select “Conform” and choose the CSV file.
4. Select “Convert” and select the destination for the files to be saved.

Specifications

A10 U.S. Digital Wireless System Frequency Range Transmitter Switching Bandwidth
Modulation Mode Digital Audio Codec Audio Frequency Response RF Output Power Audio Gain Control
Input Gain

470608 MHz

U.S. Only Models A10-TX-AU (470548 MHz) A10-TX-BU (518608 MHz)

Audio Ltd. proprietary digital RF modulation

Audio Ltd. proprietary, high-performance digital encoding algorithm

20 Hz 20 kHz

10 mW, 20 mW, 50 mW, selectable

Lavalier setting: 0 dB to +40 dB, 1 dB increments Line setting: -10 to 16 dB, 1 dB increments Mic setting (w/ 20 dB pad): 16 to 40 dB, 1 dB increments Mic setting (w/ no pad): 36 to 60 dB, 1 dB increments

Input Type Lav Bal Mic – plus P48 and P12 Bal Line

Input Impedance (ohms) 6.8k 2.5k 3k

Input Clipping Level (minimum gain)

+6 dBu +10 dBu (20 dB pad) +24 dBu

Low Frequency Cut Input Limiter Input Type Bias and Phantom Power Menu and Controls Recording File Format

Off, 40 Hz, 60 Hz, 80 Hz, 100 Hz, 200 Hz, user selectable Analog, (pre-A/D converter) Microphone or line level, balanced or unbalanced 5 V Bias, 12 V or 48 V phantom power OLED menu display, 3 button navigation Audio Ltd. proprietary MIC data file, requires conversion to WAV file microSD, microSDHC, microSDXC 0.2 ppm accuracy, holds accurate clock for 6 hours without power User settable 4-digit PIN, Audio Ltd. proprietary 2 x 1.5V LR6 AA size, lithium, NiMH, or alkaline -10 °C to +55 °C
104 g, 83 x 64 x 18 mm

Input Connector Wiring Diagram

The A10-TX-US LEMO input connector accepts numerous input types. Select the input type in the Selection Menu before connecting an audio source.

LEMO Connection

Input Type	pin-1	pin-2	pin-3	shell
Two-Wire Lavalier Microphone	shield	open	audio/bias	shield or open
Three-Wire Lavalier Microphone	not compatible			
Balanced Microphone	XLR pin-3	XLR pin-2	XLR pin-1	XLR pin-1, shell optional
Balanced Line-Level	XLR pin-3	XLR pin-2	XLR pin-1	XLR pin-1, shell optional
Unbalanced Micophone	earth	signal	earth	earth
Unbalanced Line-Level	earth	signal	earth	earth

Battery Runtime Chart

Operation	Battery Type		
	NiMH (2450 mAHr)	Alkaline	Lithium (Energizer Ultimate)
10 mW (RF Power Low)	8 hr 12 min	4 hr 7 min	12 hr 18 min
20 mW (RF Power Med)	7 hr 29 min	3 hr 56 min	11 hr 31 min
50 mW (RF Power High)	4 hr 33 min	2 hr 21 min	7 hr 57 min
50 mW, 48 V	3 hr 29 min	1 hr 33 min	6 hr 20 min

The 48 V tests were run with a Schoeps CMIT Mini. Other settings used for tests to compile the chart are: Low Cut Off, Limiter On, 40 dB gain (for 48 V)/30 dB gain (for Lavalier), freshly formatted 8G card, Bluetooth On, Blue LED On, and Brightness set to 5.

Certifications

FCC Conformity

The A10-TX-US transmitter complies with the following requirements: FCC (Federal Communications Commission) Part 74 Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Changes or modification not expressly approved. A10-TX-US frequency ranges supplied for use in USA: · 470.2547.8 MHz · 518.2607.4 MHz ^a Frequency range 608614 MHz is forbidden for use in US. ^a Warning! Any modifications or changes made to this device, unless explicitly approved by Audio Ltd. may invalidate the authorisation of this device. Operation of an unauthorised device is prohibited under Section 302 of the Communications act of 1934, as amended, and Subpart 1 of Part 2 of Chapter 47 of the Code of Federal Regulations. Output power is conducted average. This device is certified for portable use. Declaration of Conformity The Declaration of Conformity documentation is provide online at: <http://audioltd.com/doc/>. Before putting the products into operation, please observe the respective country-specific regulations.

Minimize RF Exposure To avoid the possibility of exceeding the FCC RF exposure limits, body-worn operations are restricted to belt-clips, holsters or similar accessories that have no metallic component in the assembly and which provide at least 7mm separations between the device and the user's body.

Frequency Tables

The A10-TX-US offers preselected frequencies based on channels and sub channels.

X Frequencies (6 MHz Per TV Channel) The chart below shows all frequencies available for the A10-TX-US transmitter.

		Sub Channel														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	1 4	470. 2	470. 6	47 1	471. 4	471. 8	472. 2	472. 6	47 3	473. 4	473. 8	474. 2	474. 6	47 5	475. 4	475. 8
	1 5	476. 2	476. 6	47 7	477. 4	477. 8	478. 2	478. 6	47 9	479. 4	479. 8	480. 2	480. 6	48 1	481. 4	481. 8
	1 6	482. 2	482. 6	48 3	483. 4	483. 8	484. 2	484. 6	48 5	485. 4	485. 8	486. 2	486. 6	48 7	487. 4	487. 8
	1 7	488. 2	488. 6	48 9	489. 4	489. 8	490. 2	490. 6	49 1	491. 4	491. 8	492. 2	492. 6	49 3	493. 4	493. 8
	1 8	494. 2	494. 6	49 5	495. 4	495. 8	496. 2	496. 6	49 7	497. 4	497. 8	498. 2	498. 6	49 9	499. 4	499. 8
	1 9	500. 2	500. 6	50 1	501. 4	501. 8	502. 2	502. 6	50 3	503. 4	503. 8	504. 2	504. 6	50 5	505. 4	505. 8
	2 0	506. 2	506. 6	50 7	507. 4	507. 8	508. 2	508. 6	50 9	509. 4	509. 8	510. 2	510. 6	51 1	511. 4	511. 8
	2 1	512. 2	512. 6	51 3	513. 4	513. 8	514. 2	514. 6	51 5	515. 4	515. 8	516. 2	516. 6	51 7	517. 4	517. 8
	2 2	518. 2	518. 6	51 9	519. 4	519. 8	520. 2	520. 6	52 1	521. 4	521. 8	522. 2	522. 6	52 3	523. 4	523. 8
	2 3	524. 2	524. 6	52 5	525. 4	525. 8	526. 2	526. 6	52 7	527. 4	527. 8	528. 2	528. 6	52 9	529. 4	529. 8

2 4	530. 2	530. 6	53 1	531. 4	531. 8	532. 2	532. 6	53 3	533. 4	533. 8	534. 2	534. 6	53 5	535. 4	535. 8
2 5	536. 2	536. 6	53 7	537. 4	537. 8	538. 2	538. 6	53 9	539. 4	539. 8	540. 2	540. 6	54 1	541. 4	541. 8
2 6	542. 2	542. 6	54 3	543. 4	543. 8	544. 2	544. 6	54 5	545. 4	545. 8	546. 2	546. 6	54 7	547. 4	547. 8
2 7	548. 2	548. 6	54 9	549. 4	549. 8	550. 2	550. 6	55 1	551. 4	551. 8	552. 2	552. 6	55 3	553. 4	553. 8
2 8	554. 2	554. 6	55 5	555. 4	555. 8	556. 2	556. 6	55 7	557. 4	557. 8	558. 2	558. 6	55 9	559. 4	559. 8
2 9	560. 2	560. 6	56 1	561. 4	561. 8	562. 2	562. 6	56 3	563. 4	563. 8	564. 2	564. 6	56 5	565. 4	565. 8
3 0	566. 2	566. 6	56 7	567. 4	567. 8	568. 2	568. 6	56 9	569. 4	569. 8	570. 2	570. 6	57 1	571. 4	571. 8
3 1	572. 2	572. 6	57 3	573. 4	573. 8	574. 2	574. 6	57 5	575. 4	575. 8	576. 2	576. 6	57 7	577. 4	577. 8
3 2	578. 2	578. 6	57 9	579. 4	579. 8	580. 2	580. 6	58 1	581. 4	581. 8	582. 2	582. 6	58 3	583. 4	583. 8
3 3	584. 2	584. 6	58 5	585. 4	585. 8	586. 2	586. 6	58 7	587. 4	587. 8	588. 2	588. 6	58 9	589. 4	589. 8
3 4	590. 2	590. 6	59 1	591. 4	591. 8	592. 2	592. 6	59 3	593. 4	593. 8	594. 2	594. 6	59 5	595. 4	595. 8
3 5	596. 2	596. 6	59 7	597. 4	597. 8	598. 2	598. 6	59 9	599. 4	599. 8	600. 2	600. 6	60 1	601. 4	601. 8
3 6	602. 2	602. 6	60 3	603. 4	603. 8	604. 2	604. 6	60 5	605. 4	605. 8	606. 2	606. 6	60 7	607. 4	607. 8

3 7	608. 2	608. 6	60 9	609. 4	609. 8	610. 2	610. 6	61 1	611. 4	611. 8	612. 2	612. 6	61 3	613. 4	613. 8
3 8	614. 2	614. 6	61 5	615. 4	615. 8	616. 2	616. 6	61 7	617. 4	617. 8	618. 2	618. 6	61 9	619. 4	619. 8
3 9	620. 2	620. 6	62 1	621. 4	621. 8	622. 2	622. 6	62 3	623. 4	623. 8	624. 2	624. 6	62 5	625. 4	625. 8
4 0	626. 2	626. 6	62 7	627. 4	627. 8	628. 2	628. 6	62 9	629. 4	629. 8	630. 2	630. 6	63 1	631. 4	631. 8
4 1	632. 2	632. 6	63 3	633. 4	633. 8	634. 2	634. 6	63 5	635. 4	635. 8	636. 2	636. 6	63 7	637. 4	637. 8
4 2	638. 2	638. 6	63 9	639. 4	639. 8	640. 2	640. 6	64 1	641. 4	641. 8	642. 2	642. 6	64 3	643. 4	643. 8
4 3	644. 2	644. 6	64 5	645. 4	645. 8	646. 2	646. 6	64 7	647. 4	647. 8	648. 2	648. 6	64 9	649. 4	649. 8
4 4	650. 2	650. 6	65 1	651. 4	651. 8	652. 2	652. 6	65 3	653. 4	653. 8	654. 2	654. 6	65 5	655. 4	655. 8
4 5	656. 2	656. 6	65 7	657. 4	657. 8	658. 2	658. 6	65 9	659. 4	659. 8	660. 2	660. 6	66 1	661. 4	661. 8
4 6	662. 2	662. 6	66 3	663. 4	663. 8	664. 2	664. 6	66 5	665. 4	665. 8	666. 2	666. 6	66 7	667. 4	667. 8
4 7	668. 2	668. 6	66 9	669. 4	669. 8	670. 2	670. 6	67 1	671. 4	671. 8	672. 2	672. 6	67 3	673. 4	673. 8
4 8	674. 2	674. 6	67 5	675. 4	675. 8	676. 2	676. 6	67 7	677. 4	677. 8	678. 2	678. 6	67 9	679. 4	679. 8
4 9	680. 2	680. 6	68 1	681. 4	681. 8	682. 2	682. 6	68 3	683. 4	683. 8	684. 2	684. 6	68 5	685. 4	685. 8

5 0	686. 2	686. 6	68 7	687. 4	687. 8	688. 2	688. 6	68 9	689. 4	689. 8	690. 2	690. 6	69 1	691. 4	691. 8
5 1	692. 2	692. 6	69 3	693. 4	693. 8	694. 2	694. 6	69 5	695. 4	695. 8	696. 2	696. 6	69 7	697. 4	697. 8

Y Frequencies (7 MHz Per TV Channel)

		Sub Channels																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	2 2	485 .3	485 .7	486 .1	486 .5	486 .9	487 .3	487 .7	488 .1	488 .5	488 .9	489 .3	489 .7	490 .1	490 .5	490 .9	491 .3	491 .7
	2 3	492 .3	492 .7	493 .1	493 .5	493 .9	494 .3	494 .7	495 .1	495 .5	495 .9	496 .3	496 .7	497 .1	497 .5	497 .9	498 .3	498 .7
	2 4	499 .3	499 .7	500 .1	500 .5	500 .9	501 .3	501 .7	502 .1	502 .5	502 .9	503 .3	503 .7	504 .1	504 .5	504 .9	505 .3	505 .7
	2 5	506 .3	506 .7	507 .1	507 .5	507 .9	508 .3	508 .7	509 .1	509 .5	509 .9	510 .3	510 .7	511 .1	511 .5	511 .9	512 .3	512 .7
	2 6	513 .3	513 .7	514 .1	514 .5	514 .9	515 .3	515 .7	516 .1	516 .5	516 .9	517 .3	517 .7	518 .1	518 .5	518 .9	519 .3	519 .7
	2 7	520 .3	520 .7	521 .1	521 .5	521 .9	522 .3	522 .7	523 .1	523 .5	523 .9	524 .3	524 .7	525 .1	525 .5	525 .9	526 .3	526 .7
	2 8	527 .3	527 .7	528 .1	528 .5	528 .9	529 .3	529 .7	530 .1	530 .5	530 .9	531 .3	531 .7	532 .1	532 .5	532 .9	533 .3	533 .7
	2 9	534 .3	534 .7	535 .1	535 .5	535 .9	536 .3	536 .7	537 .1	537 .5	537 .9	538 .3	538 .7	539 .1	539 .5	539 .9	540 .3	540 .7
	3 0	541 .3	541 .7	542 .1	542 .5	542 .9	543 .3	543 .7	544 .1	544 .5	544 .9	545 .3	545 .7	546 .1	546 .5	546 .9	547 .3	547 .7

s l e n n a h C	3 1	548 .3	548 .7	549 .1	549 .5	549 .9	550 .3	550 .7	551 .1	551 .5	551 .9	552 .3	552 .7	553 .1	553 .5	553 .9	554 .3	554 .7
	3 2	555 .3	555 .7	556 .1	556 .5	556 .9	557 .3	557 .7	558 .1	558 .5	558 .9	559 .3	559 .7	560 .1	560 .5	560 .9	561 .3	561 .7
	3 3	562 .3	562 .7	563 .1	563 .5	563 .9	564 .3	564 .7	565 .1	565 .5	565 .9	566 .3	566 .7	567 .1	567 .5	567 .9	568 .3	568 .7
	3 4	569 .3	569 .7	570 .1	570 .5	570 .9	571 .3	571 .7	572 .1	572 .5	572 .9	573 .3	573 .7	574 .1	574 .5	574 .9	575 .3	575 .7
	3 5	576 .3	576 .7	577 .1	577 .5	577 .9	578 .3	578 .7	579 .1	579 .5	579 .9	580 .3	580 .7	581 .1	581 .5	581 .9	582 .3	582 .7
	3 6	583 .3	583 .7	584 .1	584 .5	584 .9	585 .3	585 .7	586 .1	586 .5	586 .9	587 .3	587 .7	588 .1	588 .5	588 .9	589 .3	589 .7
	3 7	590 .3	590 .7	591 .1	591 .5	591 .9	592 .3	592 .7	593 .1	593 .5	593 .9	594 .3	594 .7	595 .1	595 .5	595 .9	596 .3	596 .7
	3 8	597 .3	597 .7	598 .1	598 .5	598 .9	599 .3	599 .7	600 .1	600 .5	600 .9	601 .3	601 .7	602 .1	602 .5	602 .9	603 .3	603 .7
	3 9	604 .3	604 .7	605 .1	605 .5	605 .9	606 .3	606 .7	607 .1	607 .5	607 .9	608 .3	608 .7	609 .1	609 .5	609 .9	610 .3	610 .7
	4 0	611 .3	611 .7	612 .1	612 .5	612 .9	613 .3	613 .7	614 .1	614 .5	614 .9	615 .3	615 .7	616 .1	616 .5	616 .9	617 .3	617 .7
	4 1	618 .3	618 .7	619 .1	619 .5	619 .9	620 .3	620 .7	621 .1	621 .5	621 .9	622 .3	622 .7	623 .1	623 .5	623 .9	624 .3	624 .7
	4 2	625 .3	625 .7	626 .1	626 .5	626 .9	627 .3	627 .7	628 .1	628 .5	628 .9	629 .3	629 .7	630 .1	630 .5	630 .9	631 .3	631 .7
	4 3	632 .3	632 .7	633 .1	633 .5	633 .9	634 .3	634 .7	635 .1	635 .5	635 .9	636 .3	636 .7	637 .1	637 .5	637 .9	638 .3	638 .7

4 4	639 .3	639 .7	640 .1	640 .5	640 .9	641 .3	641 .7	642 .1	642 .5	642 .9	643 .3	643 .7	644 .1	644 .5	644 .9	645 .3	645 .7
4 5	646 .3	646 .7	647 .1	647 .5	647 .9	648 .3	648 .7	649 .1	649 .5	649 .9	650 .3	650 .7	651 .1	651 .5	651 .9	652 .3	652 .7
4 6	653 .3	653 .7	654 .1	654 .5	654 .9	655 .3	655 .7	656 .1	656 .5	656 .9	657 .3	657 .7	658 .1	658 .5	658 .9	659 .3	659 .7
4 7	660 .3	660 .7	661 .1	661 .5	661 .9	662 .3	662 .7	663 .1	663 .5	663 .9	664 .3	664 .7	665 .1	665 .5	665 .9	666 .3	666 .7
4 8	667 .3	667 .7	668 .1	668 .5	668 .9	669 .3	669 .7	670 .1	670 .5	670 .9	671 .3	671 .7	672 .1	672 .5	672 .9	673 .3	673 .7
4 9	674 .3	674 .7	675 .1	675 .5	675 .9	676 .3	676 .7	677 .1	677 .5	677 .9	678 .3	678 .7	679 .1	679 .5	679 .9	680 .3	680 .7
5 0	681 .3	681 .7	682 .1	682 .5	682 .9	683 .3	683 .7	684 .1	684 .5	684 .9	685 .3	685 .7	686 .1	686 .5	686 .9	687 .3	687 .7
5 1	688 .3	688 .7	689 .1	689 .5	689 .9	690 .3	690 .7	691 .1	691 .5	691 .9	692 .3	692 .7	693 .1	693 .5	693 .9	694 .3	694 .7

Z Frequencies (8 MHz Per TV Channel)

		Sub Channels																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	2 1	47 0. 2	47 0. 6	47 1. 0	47 1. 4	47 1.8	47 2.2	47 2.6	47 3.0	47 3.4	47 3.8	47 4.2	47 4.6	47 5.0	47 5.4	47 5.8	47 6.2	47 6.6	47 7.0	47 7.4	47 7.8
	2 2	47 8. 2	47 8. 6	47 9. 0	47 9. 4	47 9.8	48 0.2	48 0.6	48 1.0	48 1.4	48 1.8	48 2.2	48 2.6	48 3.0	48 3.4	48 3.8	48 4.2	48 4.6	48 5.0	48 5.4	48 5.8

2 3	48 6. 2	48 6. 6	48 7. 0	48 7. 4	48 7.8	48 8.2	48 8.6	48 9.0	48 9.4	48 9.8	49 0.2	49 0.6	49 1.0	49 1.4	49 1.8	49 2.2	49 2.6	49 3.0	49 3.4	49 3.8
2 4	49 4. 2	49 4. 6	49 5. 0	49 5. 4	49 5.8	49 6.2	49 6.6	49 7.0	49 7.4	49 7.8	49 8.2	49 8.6	49 9.0	49 9.4	49 9.8	50 0.2	50 0.6	50 1.0	50 1.4	50 1.8
2 5	50 2. 2	50 2. 6	50 3. 0	50 3. 4	50 3.8	50 4.2	50 4.6	50 5.0	50 5.4	50 5.8	50 6.2	50 6.6	50 7.0	50 7.4	50 7.8	50 8.2	50 8.6	50 9.0	50 9.4	50 9.8
2 6	51 0. 2	51 0. 6	51 1. 0	51 1. 4	51 1.8	51 2.2	51 2.6	51 3.0	51 3.4	51 3.8	51 4.2	51 4.6	51 5.0	51 5.4	51 5.8	51 6.2	51 6.6	51 7.0	51 7.4	51 7.8
2 7	51 8. 2	51 8. 6	51 9. 0	51 9. 4	51 9.8	52 0.2	52 0.6	52 1.0	52 1.4	52 1.8	52 2.2	52 2.6	52 3.0	52 3.4	52 3.8	52 4.2	52 4.6	52 5.0	52 5.4	52 5.8
2 8	52 6. 2	52 6. 6	52 7. 0	52 7. 4	52 7.8	52 8.2	52 8.6	52 9.0	52 9.4	52 9.8	53 0.2	53 0.6	53 1.0	53 1.4	53 1.8	53 2.2	53 2.6	53 3.0	53 3.4	53 3.8
2 9	53 4. 2	53 4. 6	53 5. 0	53 5. 4	53 5.8	53 6.2	53 6.6	53 7.0	53 7.4	53 7.8	53 8.2	53 8.6	53 9.0	53 9.4	53 9.8	54 0.2	54 0.6	54 1.0	54 1.4	54 1.8
3 0	54 2. 2	54 2. 6	54 3. 0	54 3. 4	54 3.8	54 4.2	54 4.6	54 5.0	54 5.4	54 5.8	54 6.2	54 6.6	54 7.0	54 7.4	54 7.8	54 8.2	54 8.6	54 9.0	54 9.4	54 9.8
3 1	55 0. 2	55 0. 6	55 1. 0	55 1. 4	55 1.8	55 2.2	55 2.6	55 3.0	55 3.4	55 3.8	55 4.2	55 4.6	55 5.0	55 5.4	55 5.8	55 6.2	55 6.6	55 7.0	55 7.4	55 7.8
3 2	55 8. 2	55 8. 6	55 9. 0	55 9. 4	55 9.8	56 0.2	56 0.6	56 1.0	56 1.4	56 1.8	56 2.2	56 2.6	56 3.0	56 3.4	56 3.8	56 4.2	56 4.6	56 5.0	56 5.4	56 5.8
3 3	56 6. 2	56 6. 6	56 7. 0	56 7. 4	56 7.8	56 8.2	56 8.6	56 9.0	56 9.4	56 9.8	57 0.2	57 0.6	57 1.0	57 1.4	57 1.8	57 2.2	57 2.6	57 3.0	57 3.4	57 3.8

e n n a h C	3 4	57 4. 2	57 4. 6	57 5. 0	57 5. 4	57 5.8	57 6.2	57 6.6	57 7.0	57 7.4	57 7.8	57 8.2	57 8.6	57 9.0	57 9.4	57 9.8	58 0.2	58 0.6	58 1.0	58 1.4	58 1.8
	3 5	58 2. 2	58 2. 6	58 3. 0	58 3. 4	58 3.8	58 4.2	58 4.6	58 5.0	58 5.4	58 5.8	58 6.2	58 6.6	58 7.0	58 7.4	58 7.8	58 8.2	58 8.6	58 9.0	58 9.4	58 9.8
	3 6	59 0. 2	59 0. 6	59 1. 0	59 1. 4	59 1.8	59 2.2	59 2.6	59 3.0	59 3.4	59 3.8	59 4.2	59 4.6	59 5.0	59 5.4	59 5.8	59 6.2	59 6.6	59 7.0	59 7.4	59 7.8
	3 7	59 8. 2	59 8. 6	59 9. 0	59 9. 4	59 9.8	60 0.2	60 0.6	60 1.0	60 1.4	60 1.8	60 2.2	60 2.6	60 3.0	60 3.4	60 3.8	60 4.2	60 4.6	60 5.0	60 5.4	60 5.8
	3 8	60 6. 2	60 6. 6	60 7. 0	60 7. 4	60 7.8	60 8.2	60 8.6	60 9.0	60 9.4	60 9.8	61 0.2	61 0.6	61 1.0	61 1.4	61 1.8	61 2.2	61 2.6	61 3.0	61 3.4	61 3.8
	3 9	61 4. 2	61 4. 6	61 5. 0	61 5. 4	61 5.8	61 6.2	61 6.6	61 7.0	61 7.4	61 7.8	61 8.2	61 8.6	61 9.0	61 9.4	61 9.8	62 0.2	62 0.6	62 1.0	62 1.4	62 1.8
	4 0	62 2. 2	62 2. 6	62 3. 0	62 3. 4	62 3.8	62 4.2	62 4.6	62 5.0	62 5.4	62 5.8	62 6.2	62 6.6	62 7.0	62 7.4	62 7.8	62 8.2	62 8.6	62 9.0	62 9.4	62 9.8
	4 1	63 0. 2	63 0. 6	63 1. 0	63 1. 4	63 1.8	63 2.2	63 2.6	63 3.0	63 3.4	63 3.8	63 4.2	63 4.6	63 5.0	63 5.4	63 5.8	63 6.2	63 6.6	63 7.0	63 7.4	63 7.8
	4 2	63 8. 2	63 8. 6	63 9. 0	63 9. 4	63 9.8	64 0.2	64 0.6	64 1.0	64 1.4	64 1.8	64 2.2	64 2.6	64 3.0	64 3.4	64 3.8	64 4.2	64 4.6	64 5.0	64 5.4	64 5.8
	4 3	64 6. 2	64 6. 6	64 7. 0	64 7. 4	64 7.8	64 8.2	64 8.6	64 9.0	64 9.4	64 9.8	65 0.2	65 0.6	65 1.0	65 1.4	65 1.8	65 2.2	65 2.6	65 3.0	65 3.4	65 3.8
	4 4	65 4. 2	65 4. 6	65 5. 0	65 5. 4	65 5.8	65 6.2	65 6.6	65 7.0	65 7.4	65 7.8	65 8.2	65 8.6	65 9.0	65 9.4	65 9.8	66 0.2	66 0.6	66 1.0	66 1.4	66 1.8

4 5	66 2. 2	66 2. 6	66 3. 0	66 3. 4	66 3.8	66 4.2	66 4.6	66 5.0	66 5.4	66 5.8	66 6.2	66 6.6	66 7.0	66 7.4	66 7.8	66 8.2	66 8.6	66 9.0	66 9.4	66 9.8
4 6	67 0. 2	67 0. 6	67 1. 0	67 1. 4	67 1.8	67 2.2	67 2.6	67 3.0	67 3.4	67 3.8	67 4.2	67 4.6	67 5.0	67 5.4	67 5.8	67 6.2	67 6.6	67 7.0	67 7.4	67 7.8
4 7	67 8. 2	67 8. 6	67 9. 0	67 9. 4	67 9.8	68 0.2	68 0.6	68 1.0	68 1.4	68 1.8	68 2.2	68 2.6	68 3.0	68 3.4	68 3.8	68 4.2	68 4.6	68 5.0	68 5.4	68 5.8
4 8	68 6. 2	68 6. 6	68 7. 0	68 7. 4	68 7.8	68 8.2	68 8.6	68 9.0	68 9.4	68 9.8	69 0.2	69 0.6	69 1.0	69 1.4	69 1.8	69 2.2	69 2.6	69 3.0	69 3.4	69 3.8

Channel Assignments by Region


Region	AL Frequency Region
North America, South Korea, Philippines	X
UK and Western Europe , Greenland, Asia, Africa	Z
Australia and New Zealand	Y
Japan	X
Taiwan	X
China	X

Channel Assignments by Region

Region North America, South Korea, Philippines UK and Western Europe , Greenland, Asia, Africa Australia and New Zealand Japan Taiwan China

AL Frequency Region X Z Y X X X

Documents / Resources

 <p>A10-TX-US Digital Transmitter — User Guide —</p>	<p>AUDIO Digital Transmitter A10-TX-US [pdf] User Guide Digital Transmitter, A10-TX-US, AUDIO</p>
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