

Method of Sync	Description	Advantages	Disadvantages
Audio: Internet	Syncing the audio by streaming your signal onto the Internet and then receiving and broadcasting your signal by the audio slave transmitters	Cost can be low, fairly simple to setup. If you stream onto the Internet your signal can then be accessed by other listeners.	The main issue is unknown delays, also the reliability of the equipment can be a problem. You need equipment that will automatically reconnect if it is disconnected. This method works best when the transmitters are in each other's fringe because if there is an delay (echo) it won't be as noticeable as people move between the two transmitters if the transmitters are in each others fringe (not close to each other) If the transmitters are in each others fringe then usually the RF carriers need not be synced. They should be zero beat (put on the same exact frequency) however. This is an simple adjustment. http://www.slimdevices.com/ makes the squeezebox that can work well to pick the audio off the internet to drive the transmitter. Also there is the Barix. You can use wireless internet equipment installed right at the transmitter and one of these audio devices to provide audio to the transmitter. We understand that satellite internet
Audio:SCA carrier	Using a local FM station sub-carrier to distribute your audio	No delay problems, easy setup. Use special radio to decode your signal, special radio cost less then \$100	SCA channel (provided by a local FM station) can be expensive.
Audio: Microwave Part 15	Transfer audio with Microwave link	One time cost, fairly easy to set up. See http://www.progressive-concepts.com/info/item.html?id=218	Need line of sight setup to work, distance limited to 2-3 miles.
Audio: Telephone Line	Transfer audio with standard telephone line	Reliable, fairly easy to set up.	Cost can be high for line, need special equipment (STL phone link) http://www.comrex.com/index.htm (Bluebox)
Audio Hopping	Receiving the signal from the Master transmitter and then rebroadcasting it onto a different frequency	Very simple setup	Have to use two frequencies, audio quality will degrade.
Audio: Cable	If the transmitters are close enough you can connect them with cable. The interface is 600 ohm balanced (like the Telco line) so the audio run can be very long.	Very simple	Have to run cable, not practicle for most situations
Audio: Time sync	Using a clock to play digital files at several locations at exactly the same time	No link required	Can be hard to setup, Files would have to be somehow put on the computers at each transmitter on a regular basis.
RF Carrier: Microwave Part 15	Transfer RF Carrier with Microwave link	One time cost, fairly easy to set up. See http://www.progressive-concepts.com/info/item.html?id=218	Need line of sight setup to work, distance limited to 2-3 miles. Need interface board to interface video in/out of microwave equipment to transmitter.
RF Carrier: GPS	Use signal available free from GPS satellites to sync RF carriers	Easy setup, easy link, there is an RS-232 interface that can be used to set the clock on a PC to exact time for audio syncing purposes.	Each transmitter requires a GPS unit which can be costly.
RF Carrier: Cable	Sync the RF with cable	Very simple	Have to run cable, not practicle for most situations
RF Carrier: non-sync (Zero-beat)	Adjust the transmitters to the same exact frequency so they won't heterodyne (squeal or rumble)	Cheap and simple, no additional equipment required except maybe a frequency counter to make adjustment.	Works best when transmitters are in each others fringe (far apart). That way some slight interference won't be noticed. Even when the carriers are on the same frequency there will be some phase flutter, the phases won't be synced.