

Re: VHF Remote Radio Questions

Source: <http://sci.tech-archive.net/Archive/sci.electronics.basics/2005-08/msg00098.html>

- *From:* Don Bowey <dbowey@xxxxxxxxxxx>
 - *Date:* Mon, 01 Aug 2005 19:27:30 -0700
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On 8/1/05 5:49 PM, in article [rsete1d34sqaq1pie9fi9f71v41cppggvr@xxxxxxxx](#), "Kitchen Man" <nannerbac@xxxxxxxx> wrote:

> On Sun, 31 Jul 2005 21:51:15 -0700, Don Bowey <dbowey@xxxxxxxxxxx>
> wrote:
>
>>> Thanks anyway. Oh, and I do have a bit of TE lying about. No
>>> worries, mate.
>>
>> I may be able to help, but I need you to define what you call a DS0. DS0 is
>> only a 64kbit/s capability or capacity. Are you trying to say you have a
>> channel in a digital facility available to you? If so, what type of channel
>> unit does it have? What are the characteristics of the voice frequency
>> interfaces to the TX and RX and how is the TX currently keyed?
>
> You and I are defining DS0 in the same way. I don't know the
> specifics of the particular line, I've only been told that it's
> available for use if I can use it. As I mentioned in another
> newsgroup, this is a low-priority project, almost a spare-time
> activity. I will investigate the characteristics of the line in the
> next few days. Thanks for your questions. Some further info:
>
> The radio is a Kenwood TK-720. Today we mulled the possibility of
> breaking the line at the KMC-18 DTMF mic input, and multiplexing voice
> and a PTT tone onto our transmission line up to the relocated base.
> The drawback is that we won't be able to change channels, but we can
> live with that. We only use two, and we have interesting plans for
> remote access to the other channel (mwahahahaha!). I've also been
> looking at some turn-key solutions from online companies, but that
> would require budget begging, and it would be neat if we can do this
> as an in-house, shoe-string project.
>
> (Just for clarity, I've started the process for asking for a change on
> the license, although we won't be done with this for some time. Also,
> I have a class 2 FCC license, so I'm allowed to play with the XMTR ;-)
>
> I'll post again after I've had a chance to investigate our Cisco
> network that supplies the now-empty DS0 line to the top of the hill.
> Thanks again for your input.

Re: VHF Remote Radio Questions

If you get a choice of channel unit types, consider an E&M 4-wire unit. This will provide total isolation between the transmit and receive paths for both the audio and the DC signaling voltages (TX transmit and RX squelch if you have that capability. You will need to work up a design to coordinate the radio voice interface impedances and levels, and DC signaling with the channel unit requirements.

By the way, the FCC eliminated the 1st and 2nd class licenses. We all hold the General Class commercial license now.

Since you have dtmf capability, you could use that to switch the channel freq.

Good luck

Don

• *References:*

- ◆ **Re: VHF Remote Radio Questions**
◇ *From:* Kitchen Man
- ◆ **Re: VHF Remote Radio Questions**
◇ *From:* Don Bowey
- ◆ **Re: VHF Remote Radio Questions**
◇ *From:* Kitchen Man

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