## **Responses to TCB questions**

From: <TTidwell@icomply.com> To: <certification@curtis-straus.com> Subject: RE: BCR-RPT-MR801BI

Date: Wednesday, November 15, 2000 11:56 AM

Barry,

See the following responses. I will try Jon this afternoon.

Regards,

## Tom

> ----Original Message-----

> From: Barry C. Quinlan [SMTP:certification@curtis-straus.com]

> Sent:Monday, November 13, 2000 3:59 PM

> To: Tom Tidwell

BCR-RPT-MR801BI > Subject:

> Tom,

> Thank you for the Allen Telecom TCB application.

> Jon Curtis has identified the following technical issues that need to be > addressed:

- > 1. Please provide further justification for your claim that frequency
- > stability data is not required for this application. This justification
- > could take the form of further explaining where the frequency
- > information is sourced and how it is ensured that the frequency is

> always within tolerance.

[Tom Tidwell] The frequency is set by the

- > reference oscillator. A common oscillator frequency is used to
- > downconvert and upconvert the signal, thus the resulting output signal
- > would demonstrate no shift in frequency at all due to the MR801BI > circuitry.

- > 2. One of the brochures mentions a 50 to 100 watt peak power booster.
- > What is this and how does it relate to the claimed 20 watt power rating. Allen Telecom Response: This is a separate product that is type approved on it's own. It is not part of the approval of this product
- > 3. Please provide the complete emissions designator. We have only > found the modulation format on the 731 form.

[Tom Tidwell] The FCC has asked that we list only the modulation format on amplifier products since there is no modulated waveform produced by the amplifier.

> 4. The measured RF output power exceeds the rated RF power. Please

> explain.

[Tom Tidwell] Testing was performed with the maximum rf input level so as to demonstrate the worst-case distortion. In some cases the measured rf output power exceeds rated but when the system is installed the rated output power listed on the grant of approval is used to set the output power of the system. As a result, the spurious emissions resulting from amplifier distortion would always be lower than what was demonstrated in the testing we performed

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- > 5. The unit appears from the manual to retransmit only on the incoming
- > frequencies. It therefore appears to be a "signal booster". Please
- > explain how the device complies with 90.219 or why 90.219 should not be
- > applicable. Is it a class A or B device?

Allen Telecom Response: The final amplifier of this repeater is either a class A or a Feedforward corrected class AB multichannel amplifier. The unit does have ALC threshold settings that the user can change for limiting the RF output. This device is similar to other devices that we have certified in the past(FCC ID: BCR9GBPPHT Prism plus BDA), where the RF output is restricted by the licensee in accordance with paragraph No. 90.635 (b) table 2. The previous product was approved for 10 watts. It is the licencee's resposibility to apply this device in accordance with their own maximum allowable station effective radiated power.

- > I suggest you and Jon have a telephone conference tomorrow.
- >
- > Best regards

>

- > Barry C. Quinlan
- > Certification Manager
- > Curtis-Straus LLC

Jon,

The maximum number of channels with channelized modules installed is 8. Of course, with the wide-band modules, the number of channels depends on the bandwidth of the modules. It is possible that a system could cover the SMR band with two variable bandwidth modules, allowing the maximum number of 25 kHz channels (719 I think).

If you are able to issue the grant, could you also CC Howard Giaopulos, my client at <a href="mailto:Howard\_Gianopulos@AllenTele.com">Howard\_Gianopulos@AllenTele.com</a>

Thanks for your excellent service.

Regards,

Tom

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> -----Original Message-----
> From: Jon D. Curtis [SMTP:jdc@curtis-straus.com]
> Sent: Wednesday, November 15, 2000 3:07 PM
> To: Tom Tidwell
> Subject: BCR-RPT-MR801BI
> Hi Tom,
> I need to put the maximum number of channels for this unit onto the
> grant. From the documentation this appears to be 4 or 8. Please tell
> me the maximum number of channels supported.
> Otherwise your responses appear to address my concerns.
> Thank you for your business.
> Jon D. Curtis, P.E.
> Director of Engineering
> Curtis-Straus LLC
> 527 Great Road
> Littleton, MA 01460 USA
> Voice 978-486-8880 Fax 978-486-8828
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