

## Chris Harvey

---

**From:** Tom Cokenias [tom@tncokenias.org]  
**Sent:** Thursday, December 09, 2004 8:22 PM  
**To:** Chris Harvey  
**Subject:** RE: looking for information for WJ Assessment # AN04T4383

Hi Chris,

I'll upload the letter(s) this evening.

Re tags: the received signal is at the same frequency as the reader TX signal.

best regards

Tom

>Tom a couple more quick questions:

>

>1) I see you want Confidentiality, but you did not upload a  
>Confidentiality Letter. Please update this or change the Form 731.

>

>2) Please indicate the Return Frequency (back-scatter) from the tags  
>and indicate if this is contained in a restricted band frequency of FCC  
>15.205.

>

>Thanks,

>

>Chris

>

>Chris Harvey

>Chris Harvey EMC Consultants, LLC

>charvey@ieee.org

>cell 443-622-3300

>

>

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

>From: Tom Cokenias [mailto:tom@tncokenias.org]

>Sent: Thursday, December 09, 2004 11:21 AM

>To: charvey@ieee.org

>Subject: Re: looking for information for WJ Assessment # AN04T4383

>

>Hi Chris,

>

>I uploaded the SAR report attachments to both FCC and IC filings on the  
>website.

>

>best regards

>

>Tom

>

>>Tom, I don't have full computer access right now but I have noticed  
>>that the SAR plots, validation info, probe and dipole calibrations are  
>>also missing.

>>

>>Please submit these items.

>>  
>>  
>>-----Original Message-----  
>>From: Tom Cokenias <tom@tncokenias.org>  
>>Date: Wed, 8 Dec 2004 15:31:12  
>>To: charvey@ieee.org  
>>Subject: Re: looking for information for WJ Assessment # AN04T4383  
>>  
>>Hi Chris,  
>>  
>>I will be uploading operational and FHSS operational description to  
>>the TCB FCC and ID websites but in case they don't take, I've attached  
>>them here. Same for all 3 IDs.  
>>  
>>best regards  
>>  
>>Tom  
>>  
>>  
>>  
>>>Tom, I do not see a file called operation-anything for all 3 apps.  
>>>Yes an operational description directed to the FHSS requirements  
>>>would be very helpful. -----Original Message-----  
>>>From: Tom Cokenias <tom@tncokenias.org>  
>>>Date: Wed, 8 Dec 2004 10:18:14  
>>>To: "Chris Harvey" <Chrisharveyemc@comcast.net>  
>>>Subject: Re: looking for information for WJ Assessment # AN04T4383  
>>>  
>>>Hi Chris,  
>>>  
>>>  
>>>Thanks for getting to this so quickly. The reason you can't find  
>>>the label location photo is it wasn't there. I have uploaded same  
>>>for all the FCC IDs and will do the same for the IC applications in a  
>>>few minutes.  
>>>  
>>>  
>>>All three FCC application upload record show a pdf file named  
>>>operational.pdf as being uploaded, this is the operational  
>>>description.  
>>>  
>>>  
>>>It calls out 50 channels and random hopping, but if it would help you  
>>>client and I can write a supplemental operational description  
>>>directed to the provisions of the FHSS system. Let me know if this  
>>>would be helpful...  
>>>  
>>>  
>>>best regards  
>>>  
>>>  
>>>  
>>>  
>>>Tom  
>>>  
>>>  
>>>  
>>> Tom due to the urgency of this application I may be asking these  
>>>questions before digging deep enough, but I can't seem to find the

```

>>>following:
>>>
>>> 1) compliance with all provisions for FHSS systems, for examples
>>>
>>> 15.247(a)(1) The system shall hop to channel frequencies that are
>>>selected at the system hopping rate from a
>>> pseudorandomly ordered list of hopping frequencies. Each
>>>frequency must be used equally on the
>>> average by each transmitter. The system receivers shall have
>>>input bandwidths that match the hopping
>>> channel bandwidths of their corresponding transmitters and shall
>>>shift frequencies in synchronization with
>>> the transmitted signals.
>>>
>>> 15.247 (g) Frequency hopping spread spectrum systems are not
>>>required to employ all available hopping
>>> channels during each transmission. However, the system,
>>>consisting of both the transmitter and the
>>> receiver, must be designed to comply with all of the regulations
>>>in this section should the transmitter be
>>> presented with a continuous data (or information) stream. In
>>>addition, a system employing short
>>> transmission bursts must comply with the definition of a
>>>frequency hopping system and must distribute its
>>> transmissions over the minimum number of hopping channels
>>>specified in this section.
>>>
>>> 15.247(h) The incorporation of intelligence within a frequency
>>>hopping spread spectrum system that
>>> permits the system to recognize other users within the spectrum
>>>band so that it individually and
>>> independently chooses and adapts its hopsets to avoid hopping on
>>>occupied channels is permitted. The
>>> coordination of frequency hopping systems in any other manner for
>>>the express purpose of avoiding the
>>> simultaneous occupancy of individual hopping frequencies by
>>>multiple transmitters is not permitted.
>>>
>>> I can not find a label location diagram/photo (I know it is
>>>obvious, but it must be in the application).
>>>
>>> I can not find a detailed operational/technical description for
>>>this device (which might answer some of the questions above).
>>>
>>> It is likely that these same items will be needed for the other 2
>>>WJ applications. Please look into those and provide the information
>>>as needed.
>>>
>>> Thanks,
>>>
>>> Chris Harvey
>> > Chris Harvey EMC Consultants, LLC
>>> charvey@ieee.org
>>> cell 443-622-3300
>>>
>>>
>>>
>>>Best Regards,
>>>

```

```
>>>Chris Harvey  
>>>charvey@ieee.org  
>>  
>>  
>>Best Regards,  
>>  
>>Chris Harvey  
>>charvey@ieee.org
```