

This email chain was regarding the testing of the TEB-AIRPT622, the proposed approval of the TEB-AIRPT677 is the same type of product.

EMAILS REGARDING FCC DISCUSSIONS ON LIMITED MODULAR APPROVAL

-----Original Message-----

From: Joe Dichoso [mailto:Joe.Dichoso@fcc.gov]

Sent: Wednesday, June 01, 2005 11:51 AM

To: Matt Karlgaard

Cc: Joe Dichoso

Subject: RE: Limited modular approval

Hello Matt,

Yes, a standalone test with the boards attached. You will get a Limited Modular Approval. The module must be OEM installed in water meters with the specific L&G boards and will be installed as indicated in the Certification filing.

Regards,

Joe

-----Original Message-----

From: Matt Karlgaard [mailto:matk@turtletech.com]

Sent: Wednesday, June 01, 2005 12:33 PM

To: Joe Dichoso

Subject: RE: Limited modular approval

Joe,

Indicating how we will control the install with only L&G boards and no other circuit boards will not be a problem. I will test standalone with the L&G PCB board. I have tried getting a hold of you to clarify this, but since I have been unable to reach you, I am moving forward in that direction.

Does this mean I will only have to run one test? (standalone with our PCB attached to the L&G PCB)

Matt

-----Original Message-----

From: Joe Dichoso [mailto:Joe.Dichoso@fcc.gov]

Sent: Tuesday, May 31, 2005 1:00 PM

To: Matt Karlgaard

Cc: Joe Dichoso

Subject: RE: Limited modular approval

Hello Matt,

You need to indicate how you will be able to control the installation of the LMA with only the Landis and Gyr PCB boards. You also need to indicate how you will ensure that the device will be installed in specific meters with no other circuit boards. If you can ensure these installation conditions, you can get a LMA with the appropriate grant conditions. You will still need to test standalone, but I suggest testing with the Landis and Gyr PCB boards.

Regards,

-Joe

-----Original Message-----

From: Matt Karlgaard [mailto:matk@turtletech.com]

Sent: Tuesday, May 31, 2005 12:49 PM

To: Joe Dichoso

Subject: Limited modular approval

Joe,

I spoke with you earlier today on the phone. I would like to get limited modular approval for the T300 PCB for use with any Landis & Gyr "Focus" solid state electric meter.

The T300 circuit board is shown by itself in pictures 6 and 7. Picture 6 shows the side of the circuit board that the transmitter circuitry is on. Picture 7 shows the side of the circuit board that shields the transmitter circuit from the back of the meter. In both pictures 6 and 7, the area that the transmitter occupies is circled in red.

I was mistaken when I spoke with you on the phone and told you that all the meter circuitry is behind the plane of the sheilding surface of our PCB. Some of it is behind it, and some is on the side of the transmitter. Pictures 1, 2, and 4 show an earlier version of our circuit board with some of the meter plastic cut off. The product is in its final configuration. Pictures 5 and 8 show the view of the inside of the meter when it is taken apart. Picture 8 has our board installed and picture 5 has no board installed and the 10- pin connector is visible. Picture 9 shows the difference between a Landis & Gyr 1S and 2S meter. The black piece is the base of the meter and is the part that plugs into the meter socket. You can see there is a toroid around only 1 of the incoming lines on the 1S meter (on the bottom in picture 9) and the toroid is around both lines of the 2S meter (on top of picture 9). In any case, to get a limited modular approval for this product, I am thinking we would need to test it in one or more of its final configurations as shown in these pictures. Do you agree?

Since the back of the circuit board sheilds the transmitter portion from the base of the meter, will we be able to get a Limited Modular Approval for this product without having to test it in all the different meter types we plan to sell? Note that the back of the circuit board doesn't sheild the transmitter portion of our PCB from the Landis and Gyr PCB, which may change from meter to meter. However, if we could guarantee that the Landis and Gyr meter PCB will not change, could we get a LMA for this without retesting all types of meters?

I am leaving the office at 2:00 CST today. I will be driving 2 hours to an FCC-approved test lab tomorrow morning. If you can get me a response by 2:00 CST (in 2 hours and 15 minutes), that would be ideal. If not, please let me know by that time when you will be able to get back to me. I could come back in and check my email later in the evening if I know I will hear back from you by then.

Regards,
Matt Karlgaard
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