



70-80GHz FCC Link Registration Procedure

Introduction

Siklu's EtherHaul™ mmWave radios operate in the 'lightly licensed' 71-76/81-86GHz band (E-band) and require registration with the FCC once installed.

At these frequencies, radio signals attenuate more rapidly with distance than lower frequencies, and due to the shorter wave lengths, the E-band regulations permit the use of smaller antennas to achieve the high directivity and high gain. The immediate consequence of this high directivity, coupled with the high free space loss at these frequencies, is the possibility of a more efficient use of the spectrum. With these highly focused mmwave antennas a greater number of mmwave links can be placed in a given area as compared to less focused antennas using lower frequencies. The net result is higher reuse of the spectrum, and higher density of users, as compared to lower frequencies.

The FCC has adopted a 'light licensing' approach for the registration of E-band links. This approach allows online registration with immediate confirmation that a radio link, based on its location and transmission specs, poses no harmful interference to existing registered E-band links.

Once obtained, license for the link is granted for a period of 10 years.

Link registration options

A non-exclusive nationwide license is a required prerequisite for registering individual links in the 71-76 GHz, 81-86 GHz, and 92-95 GHz (70/80/90 GHz) bands. Individual links cannot be registered until a non-exclusive nationwide license is obtained.

Licensees must register links through one of the FCC approved 3rd-party Database Managers. Comsearch, Micronet Communications, Inc., and Frequency Finder, Inc. were announced by the FCC as independent database managers, responsible for the design and management of the third-party 70/80/90 GHz bands link registration system. Customers who expect to register a high number of links per year may choose to apply for a non-exclusive nationwide license that will allow them to register links independently with one of the Database Managers. Refer to Appendix A for detailed steps on how to independently register links.

Alternatively, Siklu offers FCC Link Registration service for customers who would like to save time and/or do not have the technical resources. In such cases, links will be registered under Siklu's nationwide license. Siklu has implemented a simple and straight-forward online link registration form on its website that lists all the required info for link registration. In addition updated products specs, including validation of the provided info to meet FCC requirements and assure smooth and time-efficient registration are available.

Siklu Online 70-80GHz Link Registration Form

1. Before completing the online form, please order the service from an authorized Siklu distributor. Contact your distributor for a quote.

P/N	Description
SR-FCC-REG	Link FCC Registration, includes two registration attempts.
SR-FCC-COR	FCC coordination process for special restricted zones, addition to registration fee.

Note regarding SR-FCC-COR: the FCC defines a manual coordination process for cases where the link location is located in a special restricted or quite zone (such as proximity to airports, borders, federal government sites or other sensitive or historical sites.)This manual coordination process takes longer and is subject to additional handling fees. Siklu or its service partner will contact you if the manual process is required and you will be asked to submit an updated PO for the additional fees.

2. Complete this form to submit your E-Band link registration with FCC after installing the link.

<https://www.siklu.com/online-fcc-link-registration/>.

Alternatively, go to Siklu website (<https://www.siklu.com/>) > Support > Online FCC Link Registration.

3. Complete the form and submit it as per instructions. The form has to be completed fully for the process to move forward.
4. One form for each link to be deployed needs to be submitted.
If you have ordered link registration service for 2 links or more, please state under the "Purchase Order Number" field (for example, "PO 12345, Link 1 of 5").
5. Once the form has been submitted, you will receive an auto-reply mail from fcc-reg@siklu.com with the application detailssummarized in an Excel spreadsheet.
6. Siklu or its service partner will confirm the receipt of the request and will update you regarding the expected processing time: up to 3 business days.
7. Siklu or its service partner will verify the provided information and will attempt to register the link with the FCC database. Upon successful registration, you will receive link registration confirmation.
8. In the case of missing or incorrect information is submitted, or if link parameters need to be changed, Siklu or its service partner will contact you to address these issues until the link is registered successfully.

Online form snapshot:

The screenshot shows the Siklu website's registration form. At the top, there's a navigation bar with 'Siklu' and various menu items. Below that, a heading reads 'Complete this form to submit your E-Band link registration with FCC.' followed by an attention note and a please note. The form fields are as follows:

- Company Name *
- Address * (with sub-fields for City * and US States *)
- Contact Person * (with sub-fields for Name * and Phone *)
- Payment Process * (with sub-fields for Via Distributor * and Distributor *)
- Purchase Order Number *
- Estimated Installation Date *
- Link Name *

Below these are two columns for SITE 1 and SITE 2, each with the following fields:

- Site Name *
- Serial Number (optional)
- Address (optional)
- Site City (optional)
- Site Zip (optional)
- State *
- Latitude (NAD83 or WGS84) *
- Longitude (NAD83 or WGS84) *
- Ground Elevation (m-AMSL) * (Above Mean Sea Level)
- ASR Number (if applicable)

Appendix A: Link registration under your own license

If you wish to obtain your own license and register the links independently, follow the procedure below:

1. Request an FCC Registration Number (FRN) from the FCC on their ULS (Universal Licensing System) portal at <https://apps.fcc.gov/coresWeb/publicHome.do>. This process takes approximately 10 minutes and an FRN number is generated immediately.
2. Apply for a Nationwide License on the FCC ULS- this procedure takes approximately 30 minutes. Once this information is entered and you pay the \$490 fee, the FCC will grant the license the next business day. Once you have your Nationwide License, you are ready to begin entering in parameters for licensing your individual links.
3. Set up an account with one of the FCC database managers- i.e. Comsearch- <http://www.comsearch.com/products/online-tools/millimeter-wave-70-90-ghz-registration/>.

Register individual links using your new account with the database manager. The Process takes approximately 10 minutes per link. The FCC charges \$75 for a 10-year registration period.

