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# Regulations

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## Free Space Optics (FSO)

Version 2.0

Document Date: 15 October 2018

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## Article (1)

### Scope of Document

- 1.1 These regulations are issued in accordance with the provisions of the UAE Federal Law by Decree No 3 of 2003 (Telecom Law) as amended and its Executive Order.
- 1.2 These regulations comprises technical conditions for use of wireless equipment for the purposes of Programme Making, Special Events and Services Ancillary to Broadcasting and Production. These regulations shall be read in conjunction with the following regulatory instruments issued by the TRA and available from the TRA website at [www.tra.gov.ae](http://www.tra.gov.ae):
  - 1.2.1 Spectrum Allocation and Assignment Regulations
  - 1.2.2 Spectrum Fees Regulation
  - 1.2.3 National Frequency Plan including National Table of Frequency Allocation

## Article (2)

### Definitions

- 2.1 The terms, words and phrases used in these Regulations shall have the same meaning as is ascribed to them in the UAE Federal Law by Decree No 3 of 2003 (Telecom Law) as amended and its Executive Order; unless these Regulations expressly provide otherwise for, or the context in which those terms, words and phrases are used in these Regulations indicates otherwise. The following terms and words shall be interpreted, as follows:
  - 2.1.1 **“Applicant”** means any Person who has applied for a License or an Authorization in accordance with the Telecom Law or other Regulatory Instruments issued by the Authority.
  - 2.1.2 **“Application”** means the request for issuance of a License or an Authorization, received at the Authority on prescribed forms as per the procedure in vogue.
  - 2.1.3 **“Authority”** or **“TRA”** means the General Authority for Regulating the Telecommunication Sector of the UAE known as Telecommunications Regulatory Authority (TRA) established pursuant to the provisions of Article 6 of Federal Law by Decree No. 3 of 2003.
  - 2.1.4 **“Authorization”** or **“Frequency Spectrum Authorization”** means a valid frequency spectrum authorization issued by the TRA and permits the use of radio frequency subject to terms and conditions as stipulated by the TRA.

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- 2.1.5 “**Free Space Optics**” or “**FSO**” means wireless transmission using free space photonics, laser or optical wireless transmitting modulated visible or infrared (IR) beams through the atmosphere for telecommunications.
- 2.1.6 “**UAE**” means the United Arab Emirates including its territorial waters and the airspace above.
- 2.1.7 “**Wavelength (Wa or  $\lambda$ )**” means the central wavelength and its FWHM (Full Width at Half Maximum). The unit should be in nanometres (e.g.:  $\lambda = 849 \pm 2$  nm). If there is a WDM transmission, the spectral range will be used.

### Article (3)

#### Applications and Fees

- 3.1 The usage of any FSO link in the UAE is subject to a valid Authorization issued by the Authority. The Application shall be submitted to the Authority. The Application processing charges and annual Authorization renewal charges shall be in accordance with the Spectrum Fees Regulations.

### Article (4)

#### Technical Conditions

- 4.1 Link planning, power levels, selection of equipment, fading margins and catering for the fog and sandstorm outages shall be the sole responsibility of the Applicant.
- 4.2 The transmit power of the laser diode higher than 10 mW should be justified by the Applicant to the satisfaction of the Authority with details of the deployment and eye safety.
- 4.3 The Authority shall not be responsible for any harmful interference to FSO links.