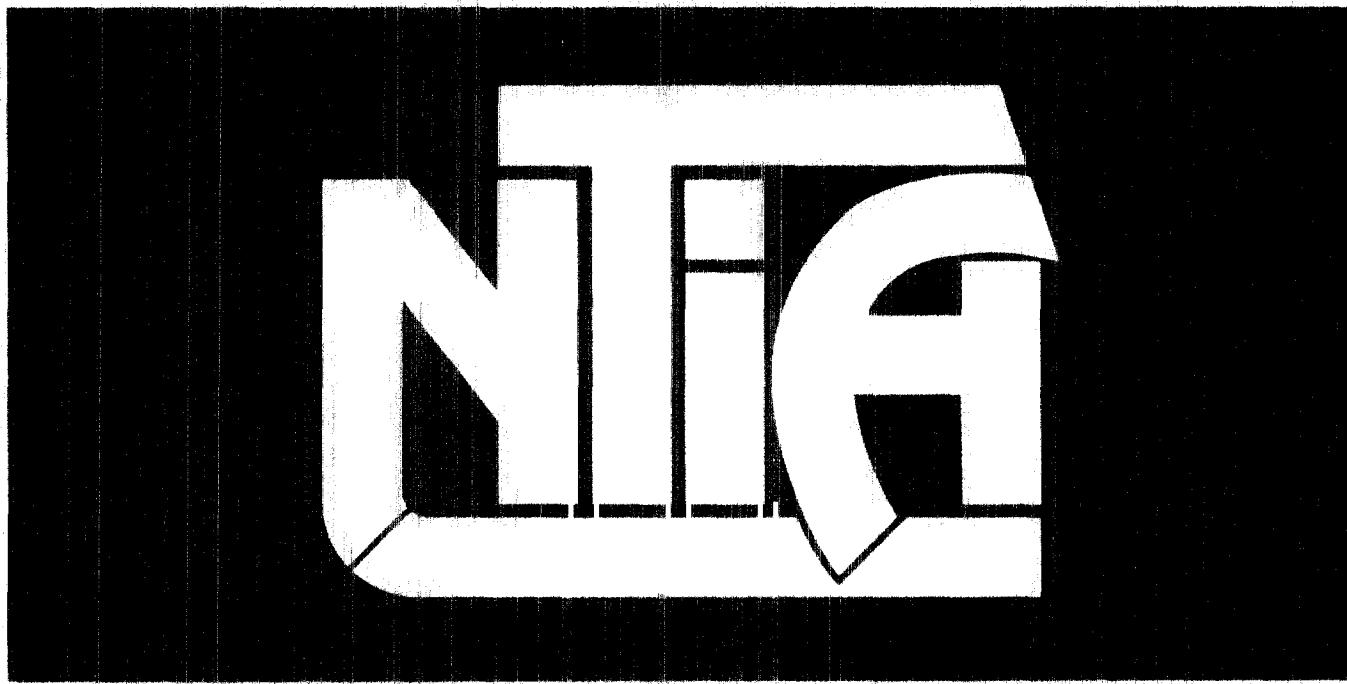


ASSESSMENT OF SATELLITE POWER FLUX-DENSITY LIMITS IN THE 2025-2300 MHz FREQUENCY RANGE

PART II



report series

**ASSESSMENT OF SATELLITE POWER
FLUX-DENSITY LIMITS IN THE
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PART II

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ABSTRACT

The power flux-density (pfд) limits for satellites operating in the 2025-2300 MHz frequency range were calculated. Two computer models, one developed by the Bell Telephone Laboratories (BTL) and the other by the Systematics General Corporation (SGC), were used in the analysis. Modifications to these models were made in order to enhance their accuracy in the evaluation of the pfд limits in this and other bands. Distinctions were made between the satellites in geostationary satellite orbit and those in non-geostationary orbits. Two different sets of limits were calculated, one for the satellites in the geostationary satellite orbit and the other for the satellites in non-geostationary orbits. These limits were calculated using the technical characteristics of equipment in the 2025-2300 MHz frequency range and the criteria of noise due to interference from satellites set by the CCIR Recommendation 357-3. The pfд limits calculated here for the 2025-2300 MHz frequency range are applicable in the portions of this frequency range authorized for use by space services. These limits were compared with the existing limits in the NTIA Manual and the analysis indicated that the pfд limits for satellites could be relaxed.

KEY WORDS

Computer Models
Determination of Power Flux Density Limits
Electromagnetic Compatibility
Power Flux Density
Systems in Space and Fixed Service Sharing
2025-2300 MHz

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