

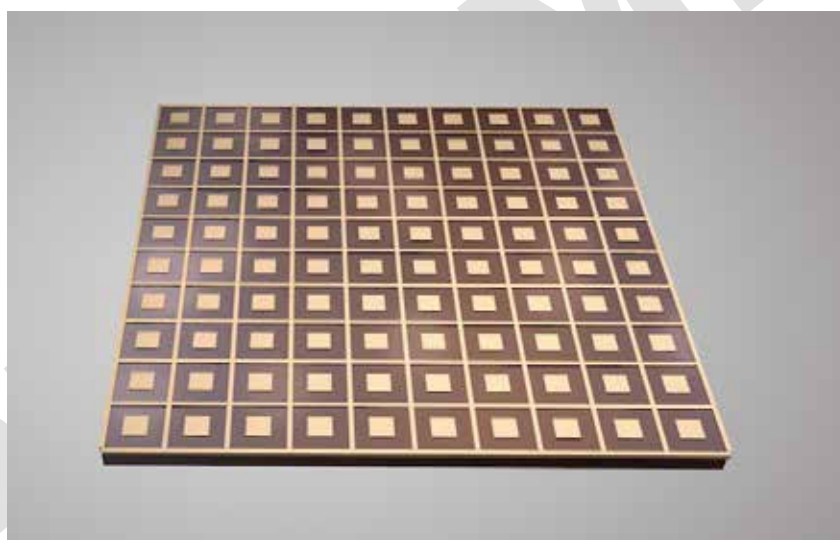
# Ka band Antenna Flat Panel Array

**Ka-FPA-2730** Previously named LE-KaFP30000

**Ka band Flat Panel Antenna 27-30GHz**

## Overview

The Ka-FPA-2730 flat panel technology developed by Arralis is a high performance solution for modern communication systems. It can be used for satcom as well as 5G comms systems. Offering a small profile and flat geometry, this technology enables wide operational bandwidth, good polarization purity and high gain in accordance with customer needs.



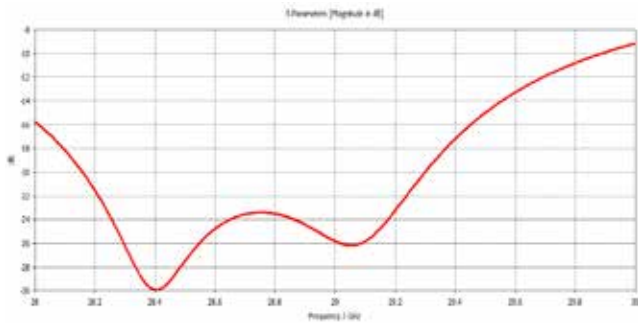
## Features

- 27-30GHz frequency range.
- 28.75GHz centre frequency.
- Polarization LHCP or RHCP.

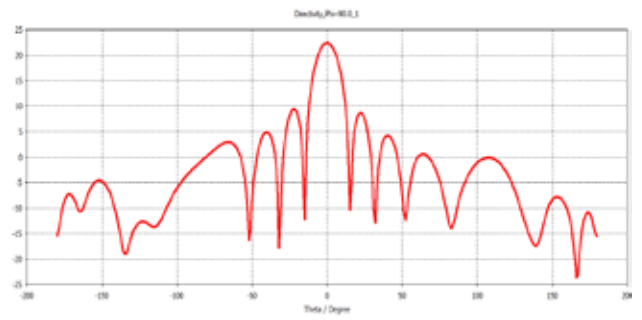
## Applications

- Ground-satellite-ground communications.
- Inter-satellite communication.
- 5G communication (linear version).
- High data-rate throughput system.

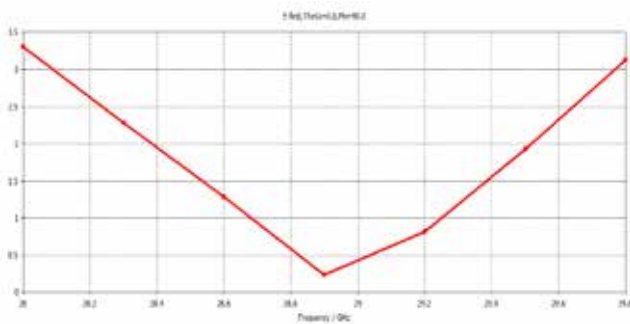
### Matching bandwidth



### Directivity



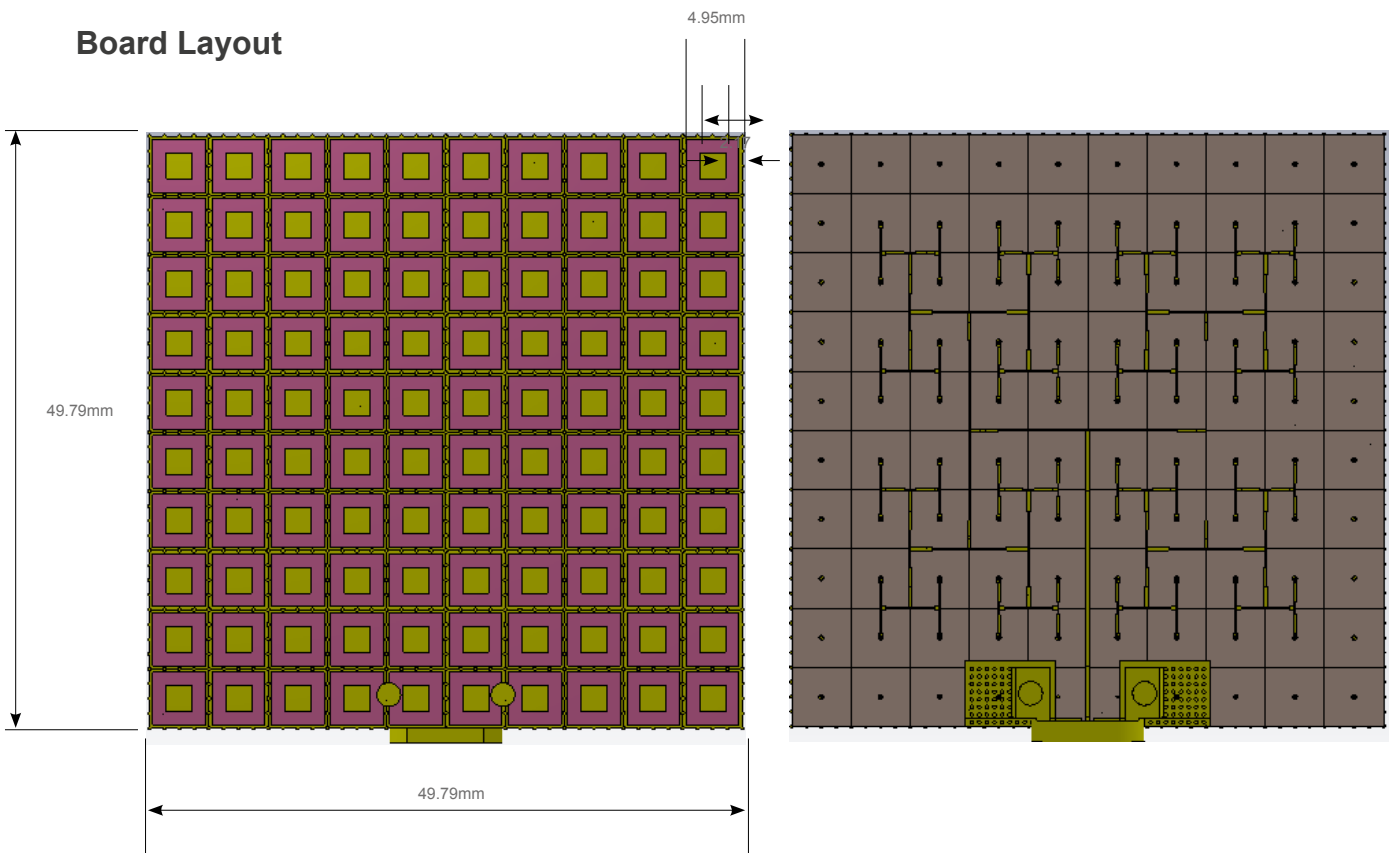
### Axial ratio V.S frequency



### FPA specification based on simulation data

| Parameter                 | Value        | Unit   |
|---------------------------|--------------|--------|
| Centre Frequency          | 28.75        | GHz    |
| Matching frequency range  | 27-30        | GHz    |
| 3dB Axial ratio bandwidth | 1.2          | GHz    |
| Polarization              | LHCP or RHCP | ---    |
| Gain                      | 20           | dBi    |
| 3dB beamwidth             | 20           | Degree |
| Front to Back             | 30           | dB     |
| SLL                       | -13          | dB     |
| Impedance                 | 50           | Ohm    |
| Dimension                 | 51 x 51      | mm     |

### Board Layout



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|  | <b>Ka band Preliminary</b> | Ka-FPA-2730 | Issue date: 30 April 21 | <b>DOC REV 3</b> | Page 3 of 3 |
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