

Extender WiFi6E

Antenna System Specs

2022 August

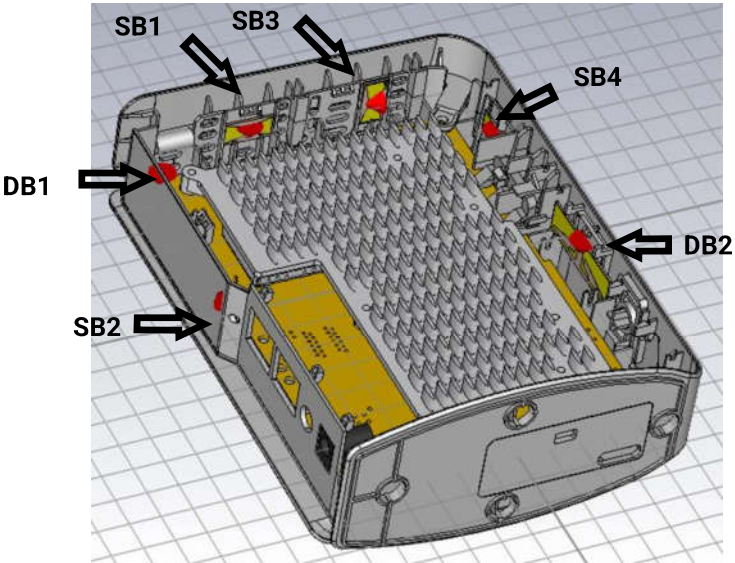


Version control

Version	date	Description
1.0	2022 March 11th	Document creation
2.0	2022 May 23rd	Increase of 5mm pigtail length on SB1
3.0	2022 Jun 6th	New dual band PCB revision v4 (reinforce ground plane+ silkscreen) + adjustments
3.1	2022 Jun 9th	Updating the antennas product schematic
4.0	August 05th	Update Radiation Patterns, Efficiency and Gain

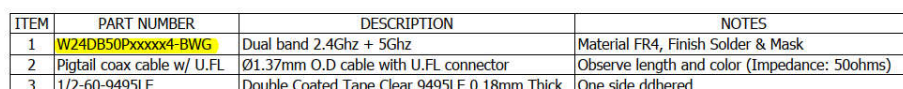
Extender WiFi6E

- Antenna PN

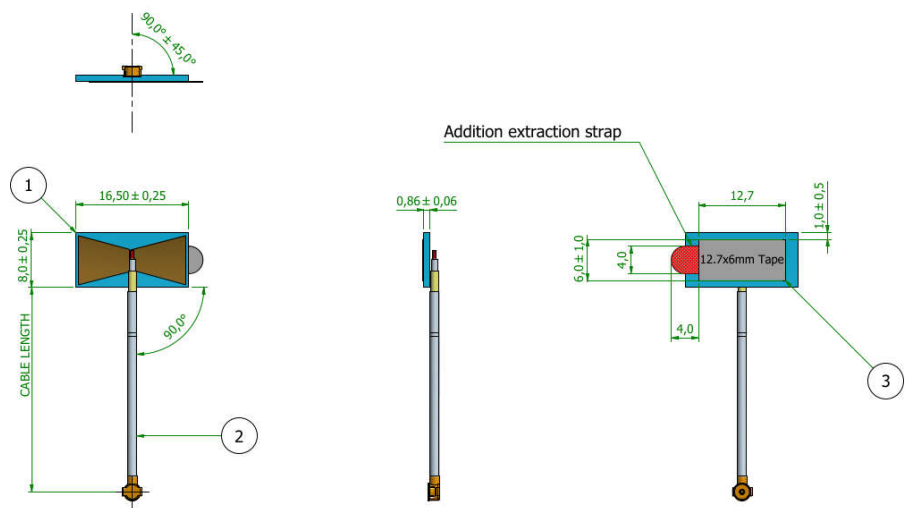


Cod.	Desc.	PN	Qty
1700271403	Antenna WiFi 2.4/5GHz DB1 175mm White	W24DB50P175WE4-BWG	1
1700271404	Antenna WiFi 2.4/5GHz DB2 65mm Black	W24DB50P065BK4-BWG	1
1700271329	Antenna WiFi 6GHz SB1 65mm Black	W65SB00P065BK1-BWG	1
1700271400	Antenna WiFi 6GHz SB2 115mm Grey	W65SB00P115GY1-BWG	1
1700271401	Antenna WiFi 6GHz SB3 35mm Black	W65SB00P035BK1-BWG	1
1700271402	Antenna WiFi 6GHz SB4 85mm White	W65SB00P085WE1-BWG	1

REV	DATE	BY	DESCRIPTION
V2.0.0			



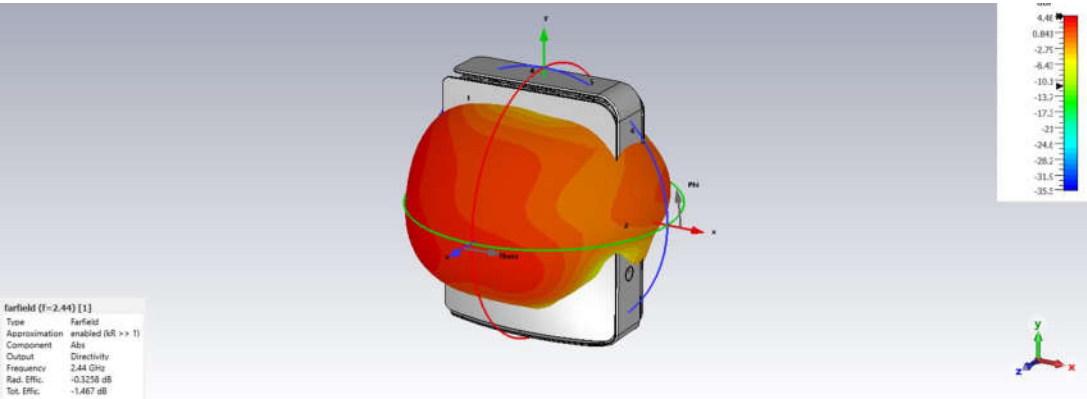
Antenna spec: W65SB00Pxxxx1 – Single band 6GHz



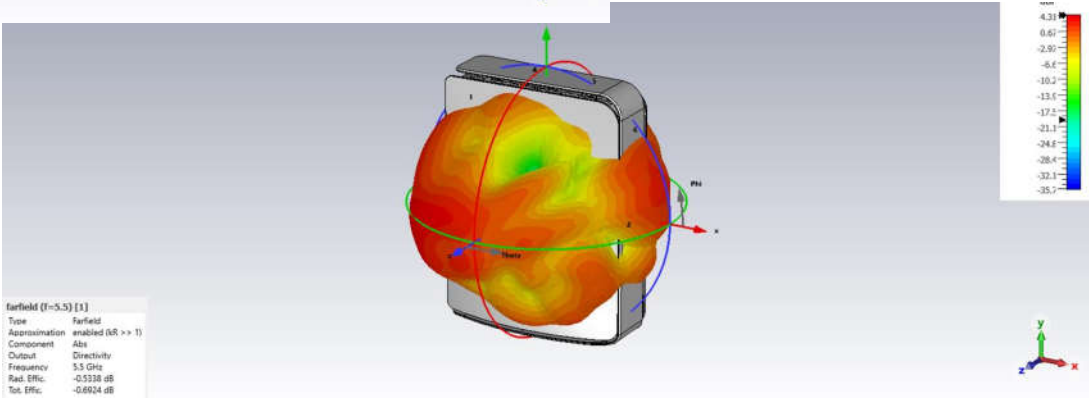
ITEM	PART NUMBER	DESCRIPTION	NOTES
1	W65SB00PxxxxR2	Single band 6/7Ghz	Material FR4, Finish Solder & Mask
2	Pigtail coax cable w/ U.FL	Ø1.37mm O.D cable with U.FL connector	Observe length and color (Impedance: 50ohms)
3	1/2-60-9495LE	Double Coated Tape Clear 9495LE 0,18mm Thick	One side adhered

3D system coverage (DB1)

DB1@2.44GHz

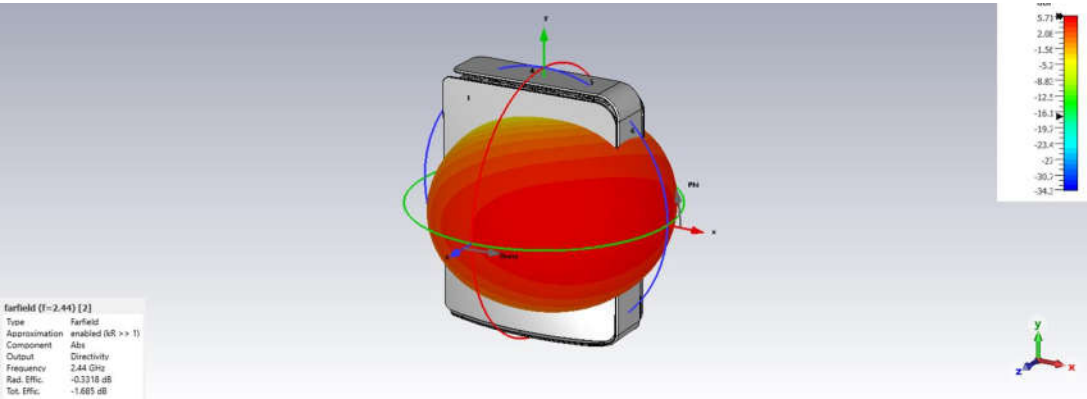


DB1@5.50GHz

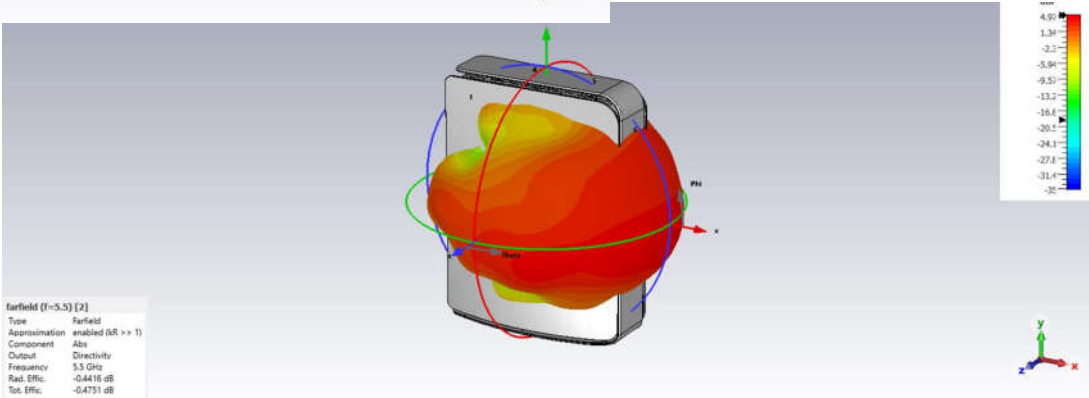


3D system coverage (DB2)

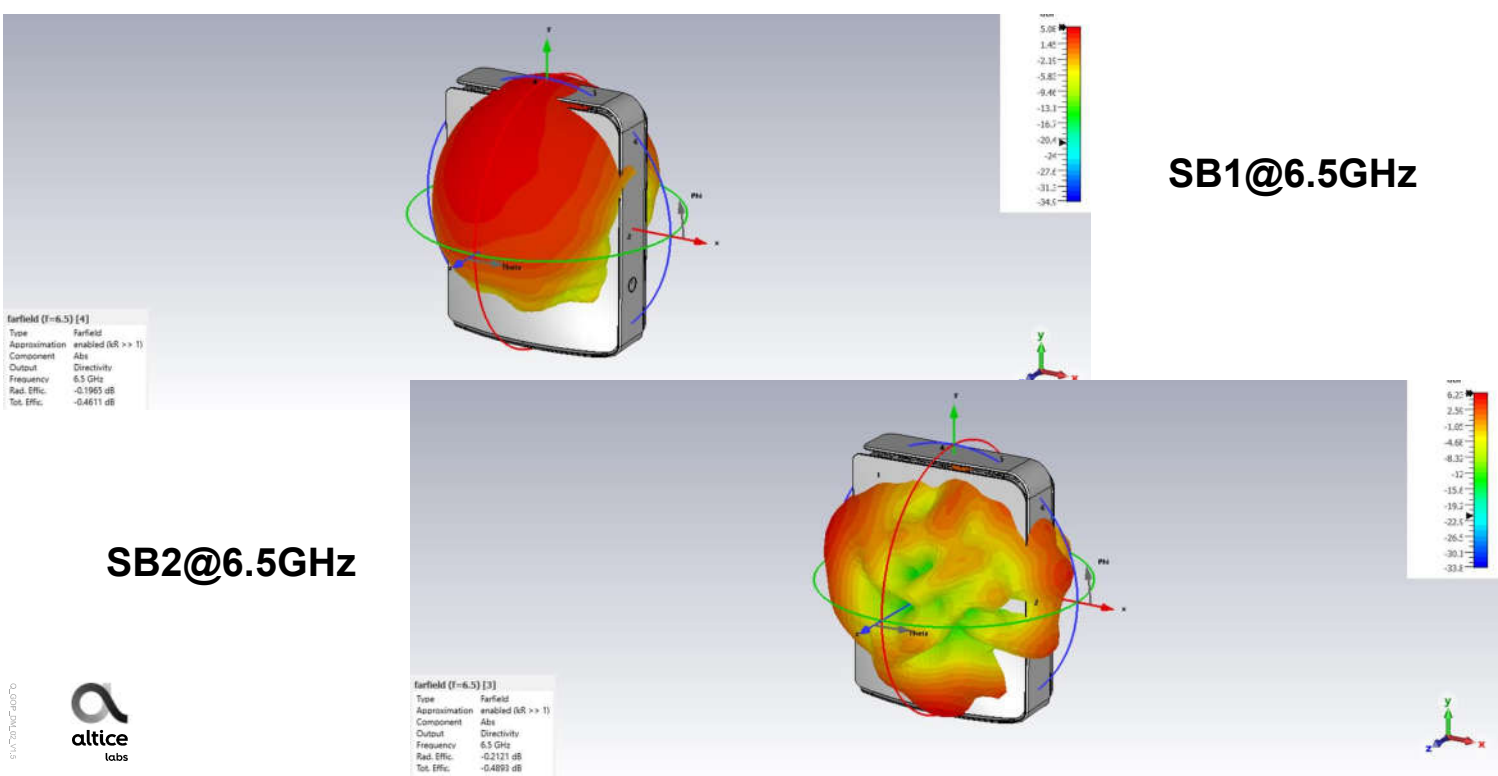
DB2@2.44GHz



DB2@5.50GHz

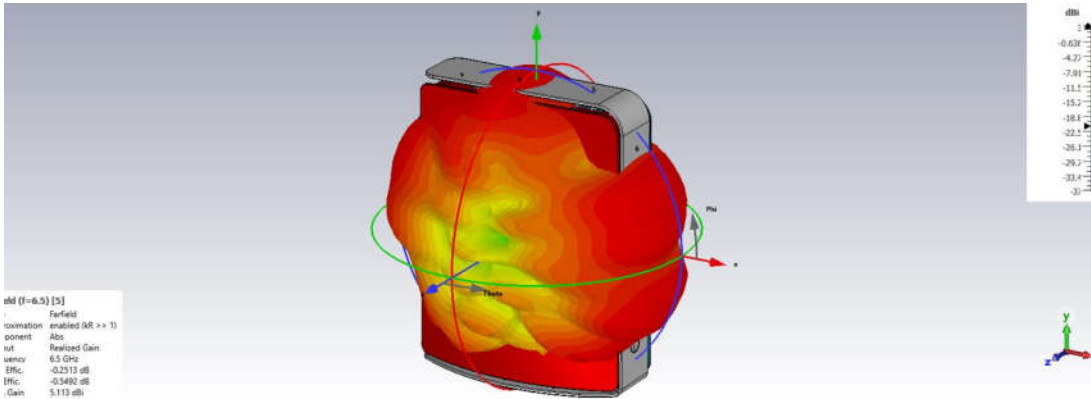


3D system coverage (SB1, SB2)

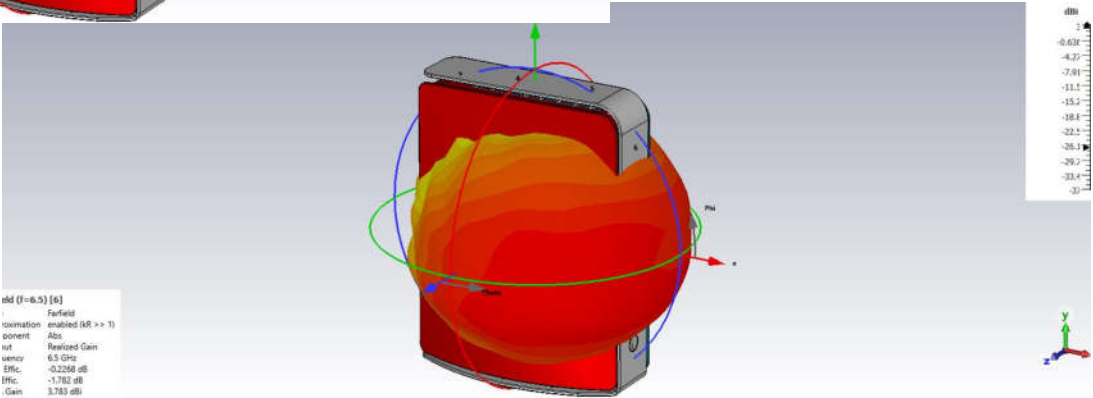


3D system coverage (SB3,SB4)

SB3@6.5GHz

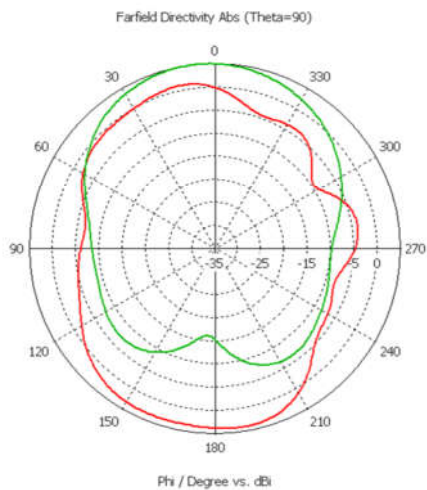


SB4@6.5GHz

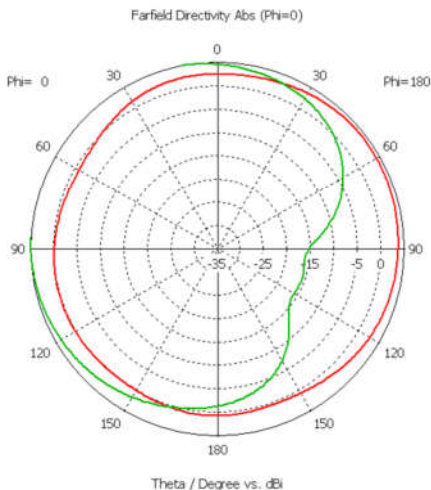


1D radiation pattern @2.440GHz

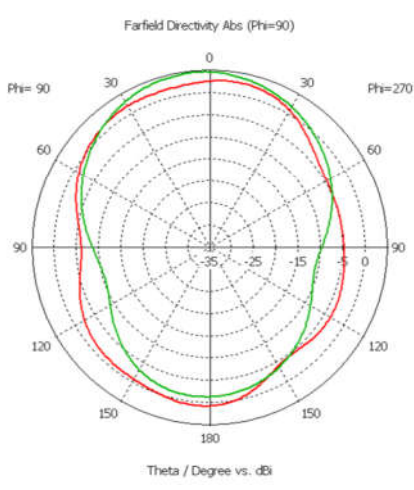
DB1
DB2



XY plane



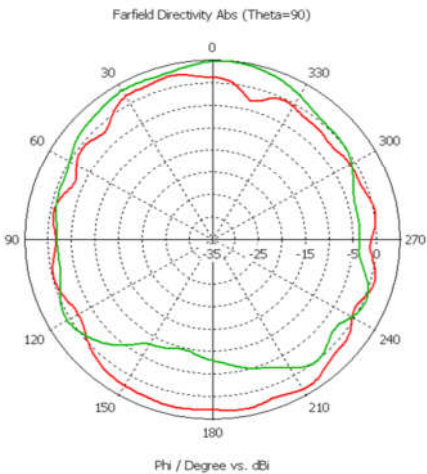
XZ plane



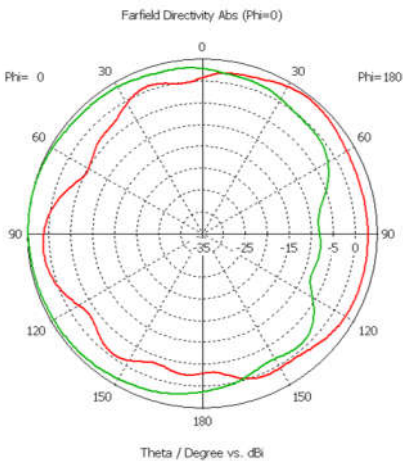
YZ plane

1D radiation pattern @5.500GHz

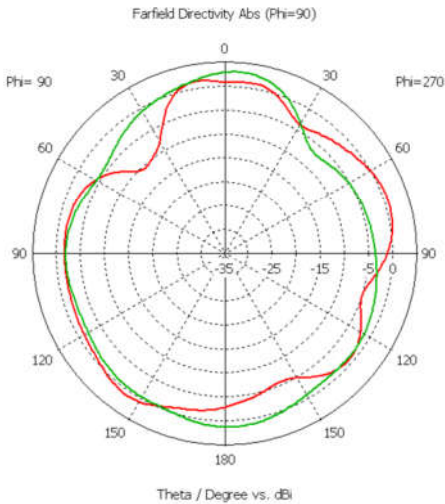
DB1
DB2



XY plane



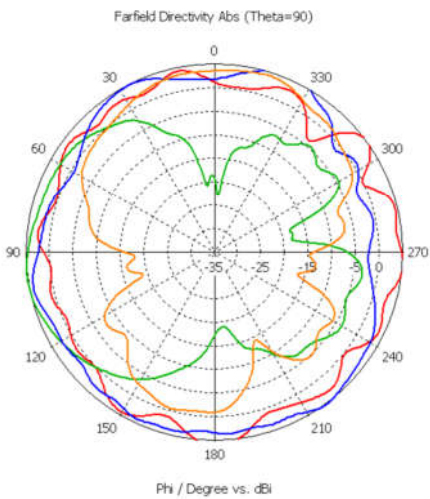
XZ plane



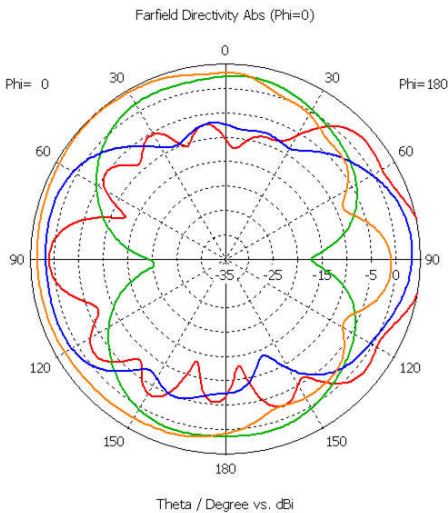
YZ plane

1D radiation pattern @6.500GHz

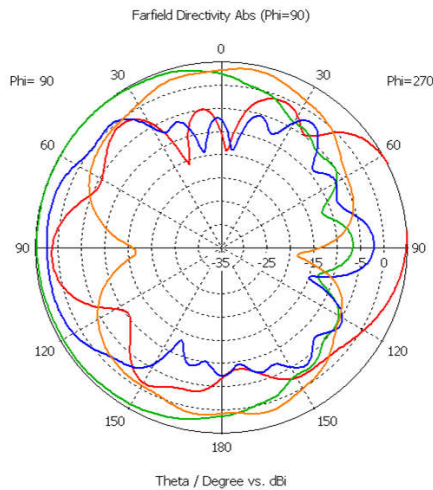
- SB1
- SB2
- SB3
- SB4



XY plane



XZ plane



YZ plane

Antenna Total Efficiency and Gain

Antenna	Efficiency % @2450MHz	Efficiency % @5500MHz	Efficiency % @6500MHz	Gain (dBi) @2450MHz	Gain (dBi) @5500MHz	Gain (dBi) @6500MHz
DB1	72.4	85.3	-	3.01	3.61	-
DB2	70.1	89.6	-	4.03	4.49	-
SB2	-	-	89.3	-	-	5.73
SB1	-	-	89.9	-	-	4.62
SB3	-	-	86.3	-	-	6.16
SB4	-	-	81.6	-	-	4.54

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Rua Eng. José Ferreira Pinto Basto,
3810 - 106 Aveiro Portugal
T: +351 234 403 200
F: +351 234 424 723
www.alticelabs.com

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