



Webinar

How can near-field measurement revolutionize our EMC analysis?

Speaker: Maxime Blin – Software Developer



Time Frame

- 30 Min Presentation
- 15 Min Questions



Rules

- Webcam and microphones are disabled
- Use the chat to ask questions during the presentation (english only)
- My colleagues will provide the answers



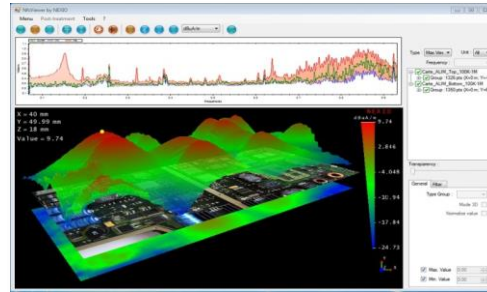
Webinar Agenda

1. Who is Nexio
2. Near-field measurements Introduction
3. Near-field measurements Solution
4. Business Case



Since 2003: Electromagnetism is our thing

INTERFERENCES
EMC
Lightning
ESD

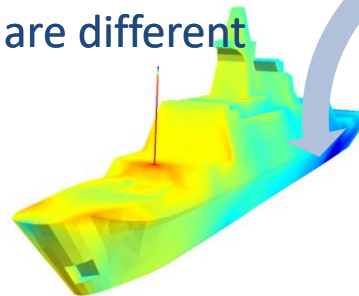


Products
Test &
Measurement



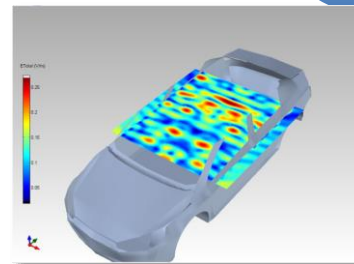
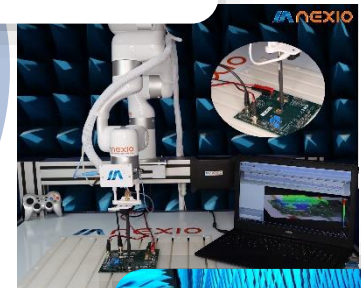
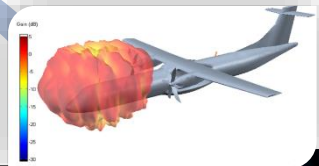
PROPAGATION
Antenna
Radio Frequency
Stealthiness (RCS)

every labs are different

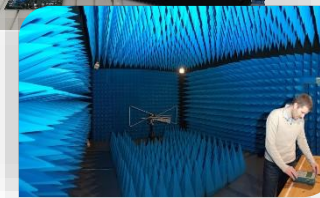


Products
Simulation

Engineering
Analysis
Simulation
Tests



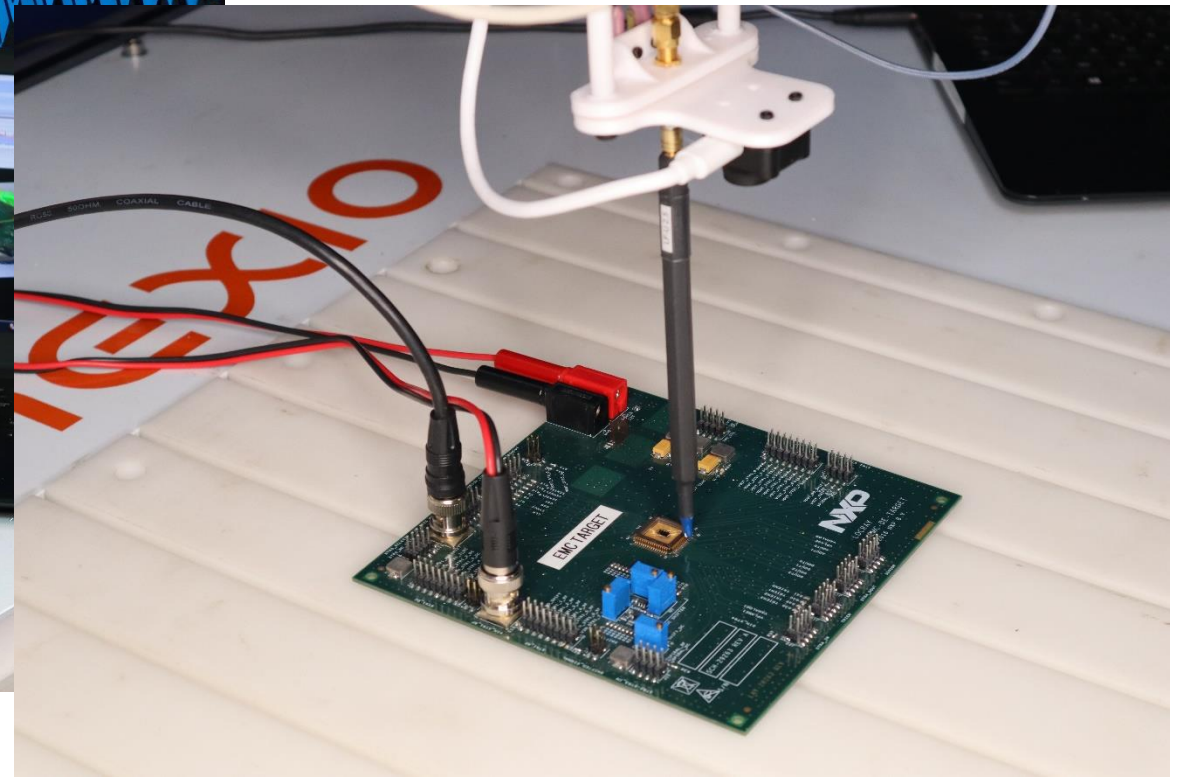
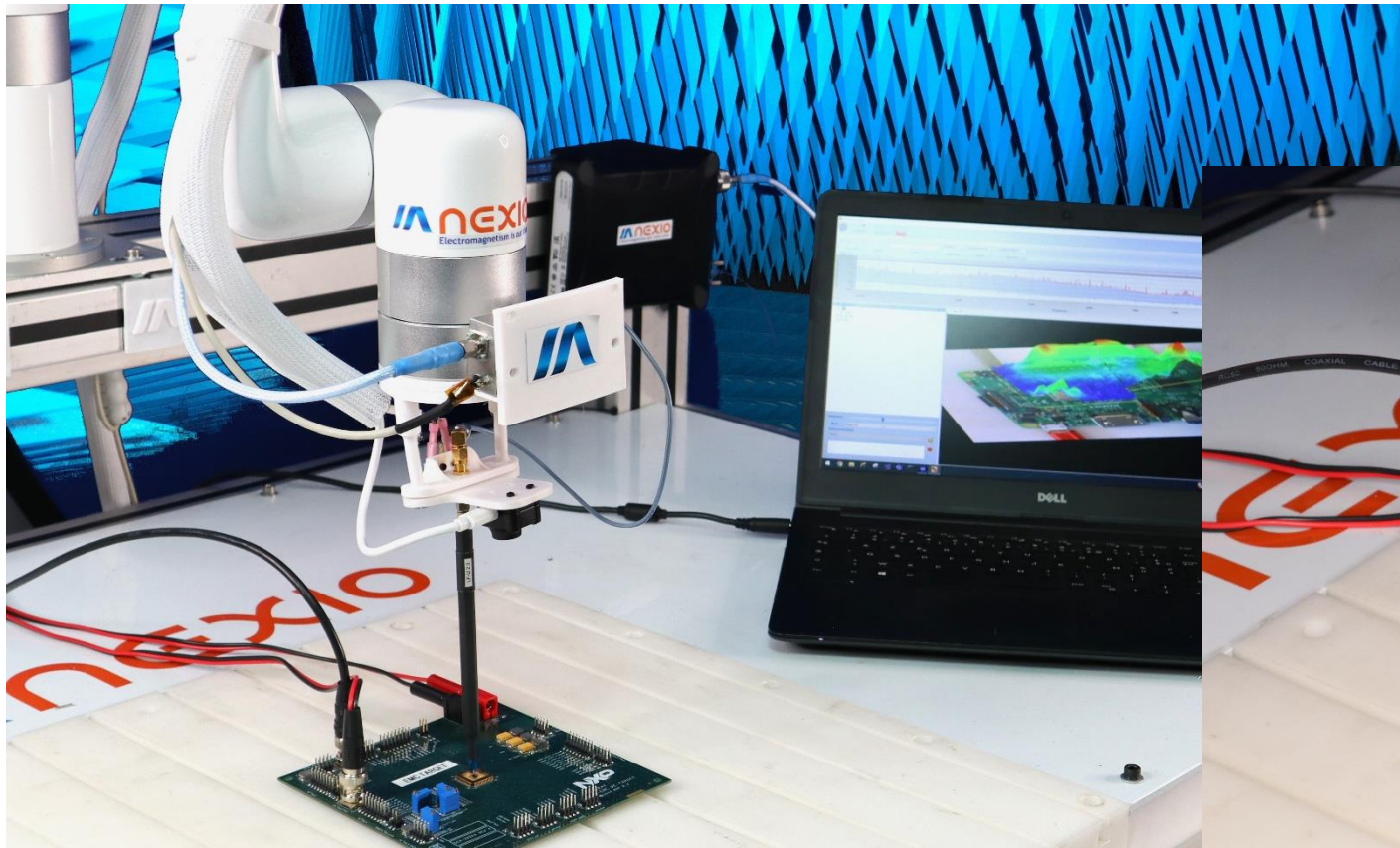
15 R&D Projects since 2008



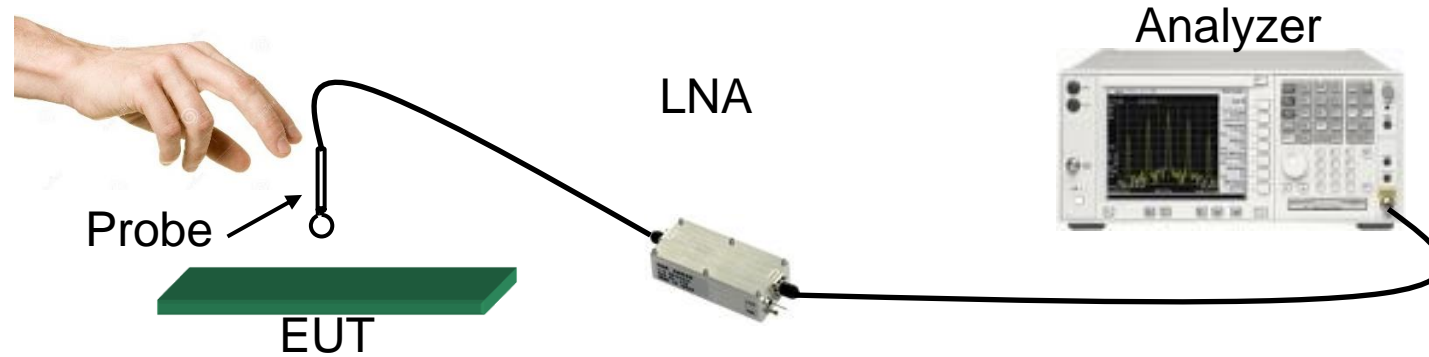
Employees: 90 – Turnover: 7M€
250 Clients- 25 countries



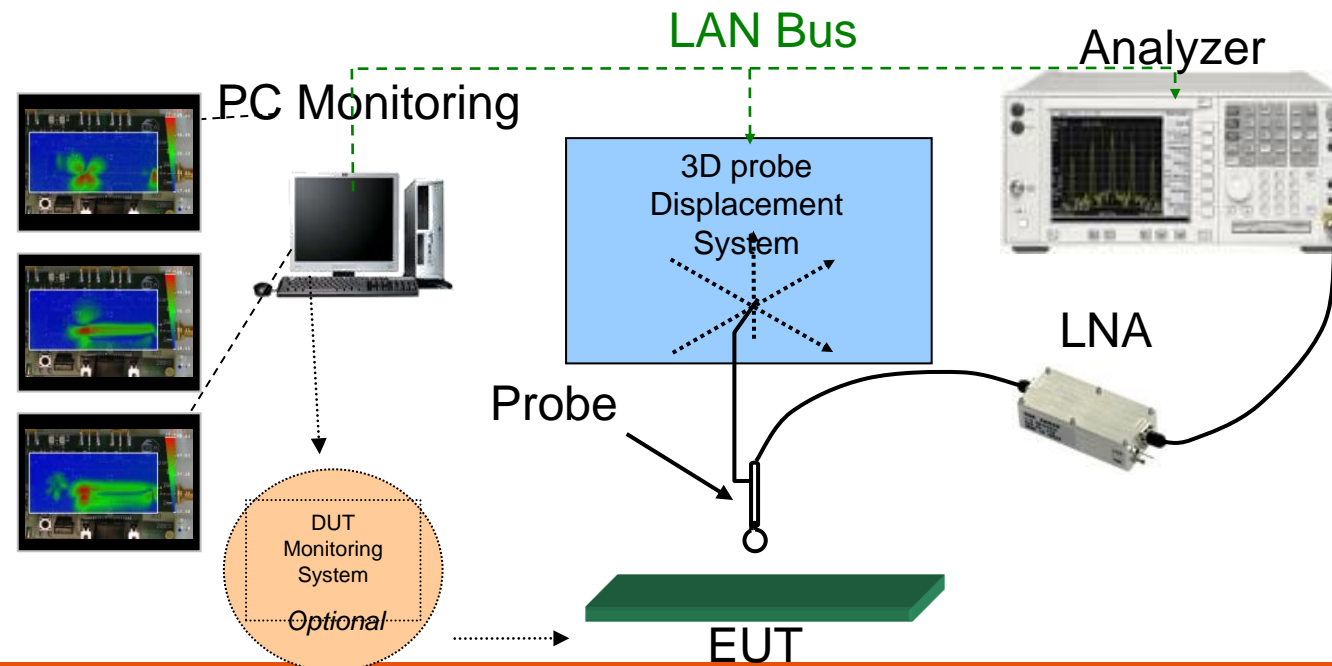
Why Near-field measurement?



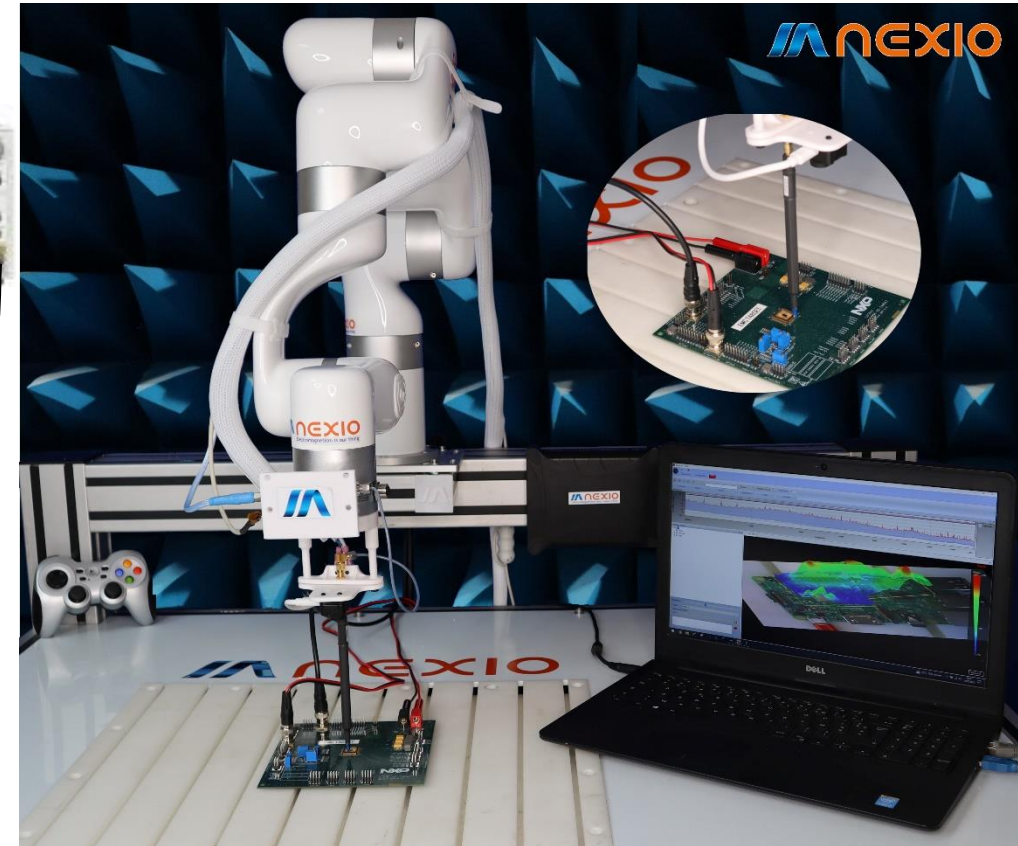
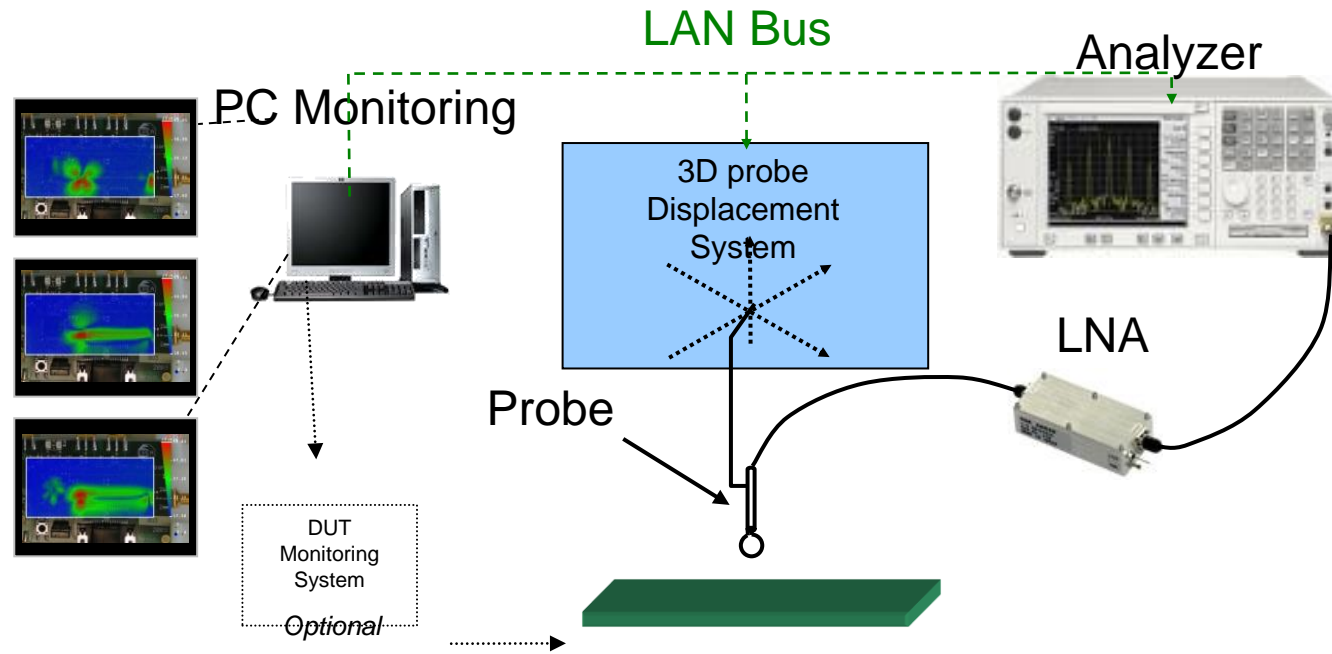
Before the near field scanner system



Today ...



Near field Scanner



Product Calibration

In this step, you will change the calibration of the product
You must match 3 points of the image with 3 points of the scanner.

Probe : 17_Coax46-D4.5t-Hz-Coax46-D4.5t

▼ Informations	
Orientation	0
Measured Field	
Unit	dBµV/m
▼ Measuring Point	
DeltaX	0
DeltaY	0
Delta Z	45,75
▼ Probe Dimensions	
Min X	0
Max X	0
Min Y	0
Max Y	0
Height	46,5

Point 1

Move the scanner

	New	Old
X :	<input type="text"/>	223,59 mm
Y :	<input type="text"/>	173,92 mm
Z :	<input type="text"/>	23,00 mm

Product
Match the point 1 of the image with the point on the scanner, then click here.

Product Copy Zone 1 Copy Zone 2

Product Informations :

Width : 125,05 mm
Height : 101,43 mm

Point 1 : (223,59 mm, 173,92 mm, 23,00 mm)
Point 2 : (273,59 mm, 173,92 mm, 23,00 mm)
Point 3 : (271,74 mm, 223,92 mm, 23,00 mm)



Scanner control

Parameters

Slow Fast

Speed :

Step : mm

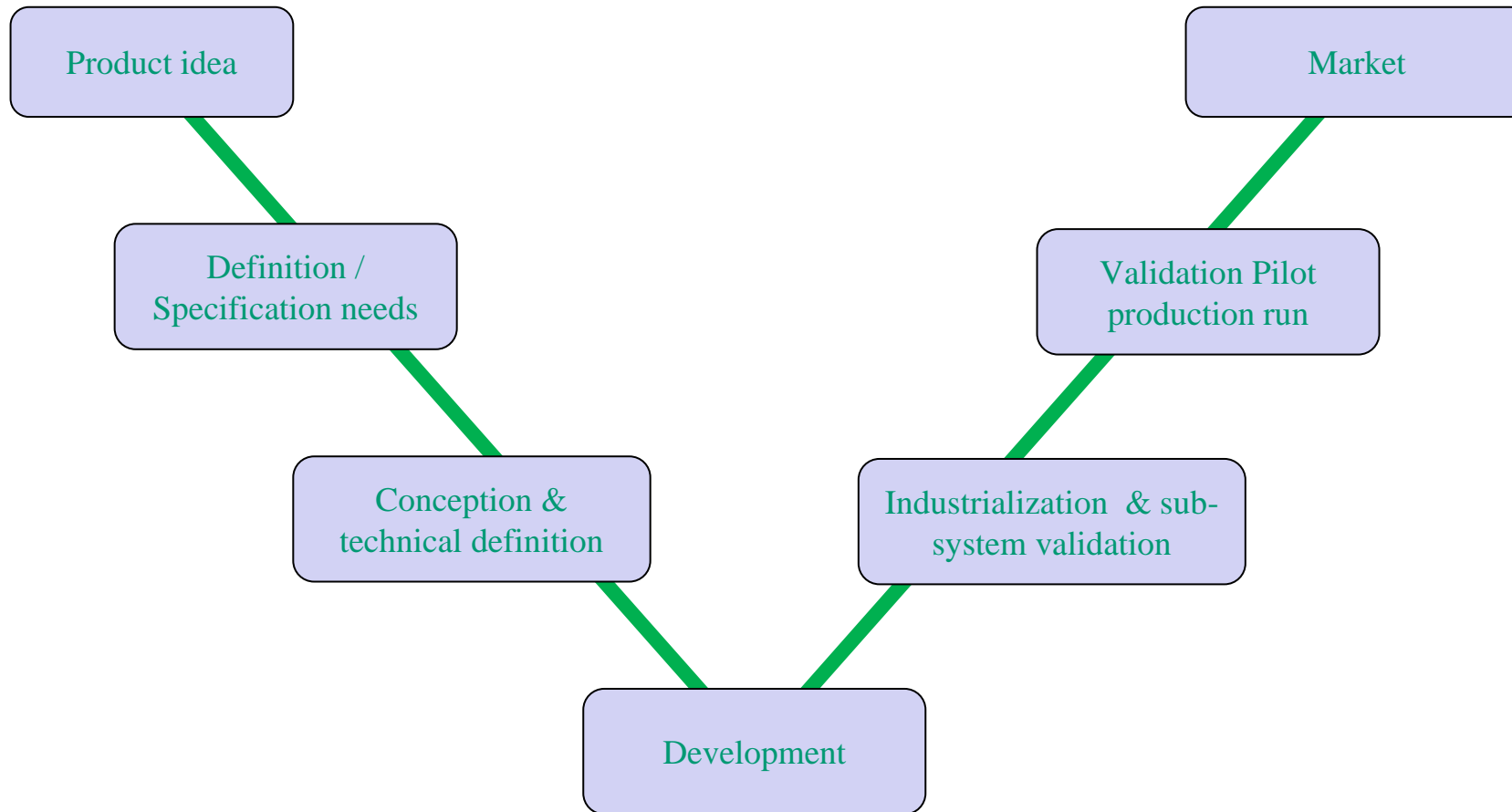
Scanner ▼

X : mm

Y : mm

Z : mm

Useful during the product life

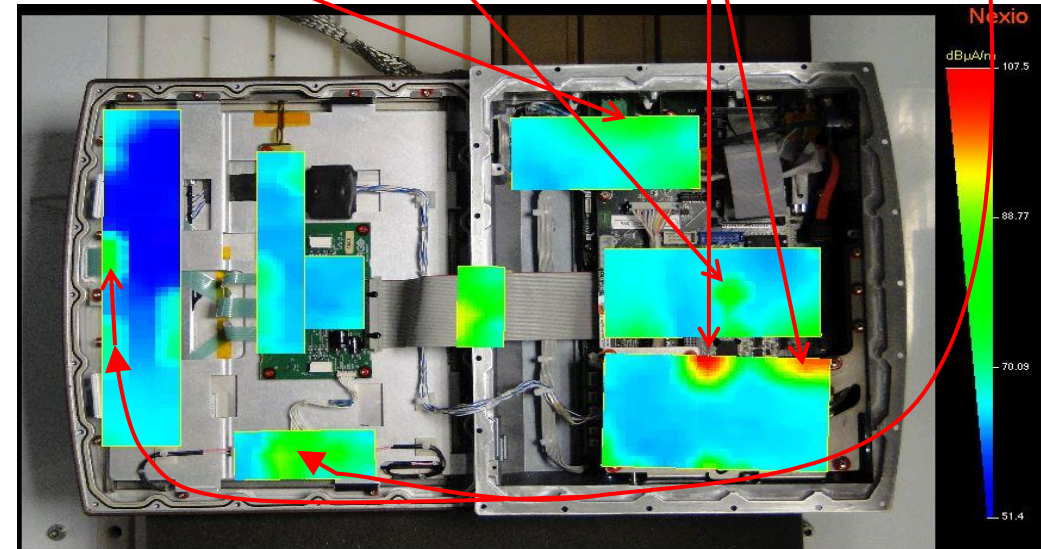
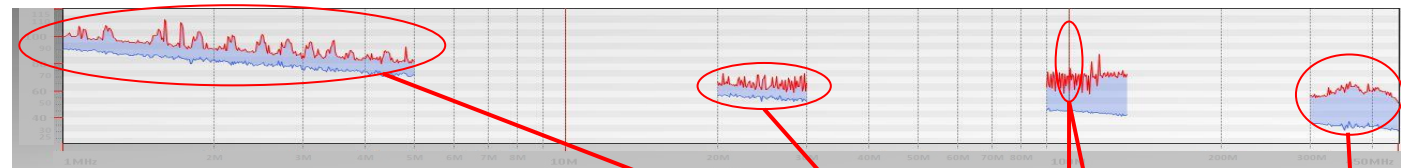
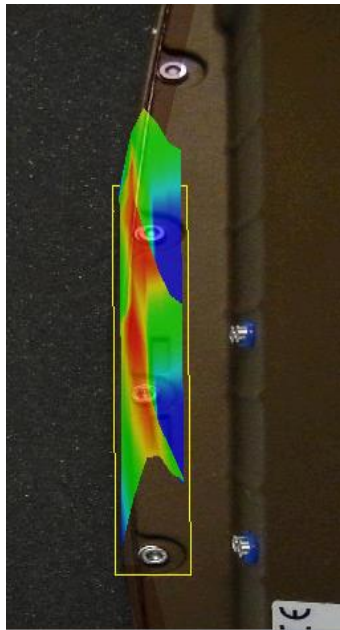


Business Case

EMC Nonconformity Investigation

(Radiated and Conducted Emission/Immunity, ESD)

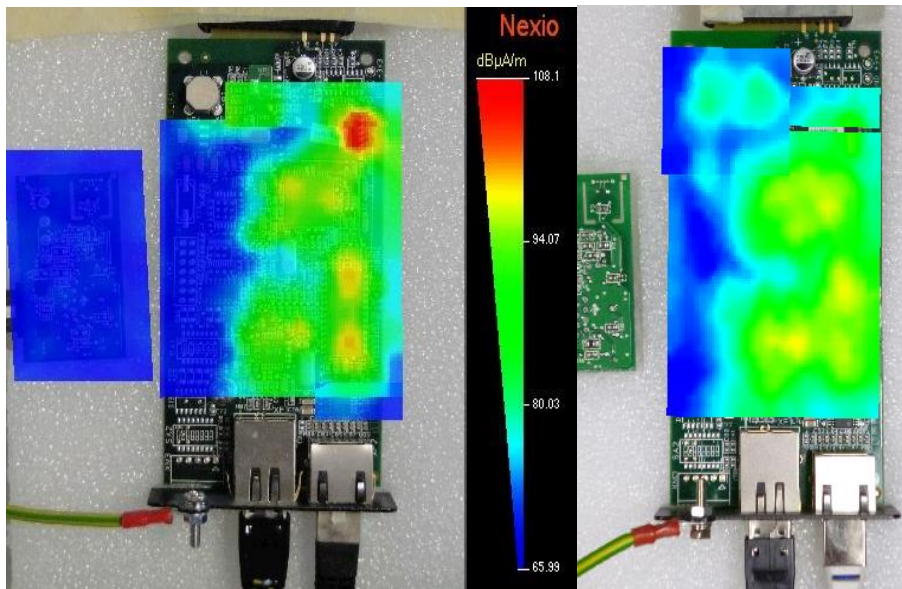
Duration of study: 1 day



Business Case

EMC Nonconformity Investigation (Radiated and Conducted Emission/Immunity, ESD)

Duration of study: 1 days



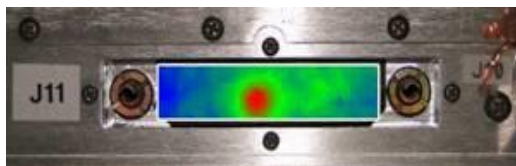
Second Run v1 (6 month after):

- ✓ Hot spot on flash memory -10dB
- ✓ Numeric noise on regulator -5dB
- ✓ EMI on numeric device <1dB
- ✓ **Reproducibility : 0.3dB between both measurements**

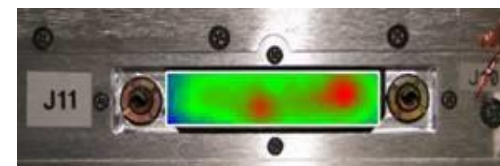
Business Case

EMC Nonconformity Investigation

(Radiated and Conducted Emission/Immunity, ESD)



Connecteur J11 – Ez- 498MHz-503MHz



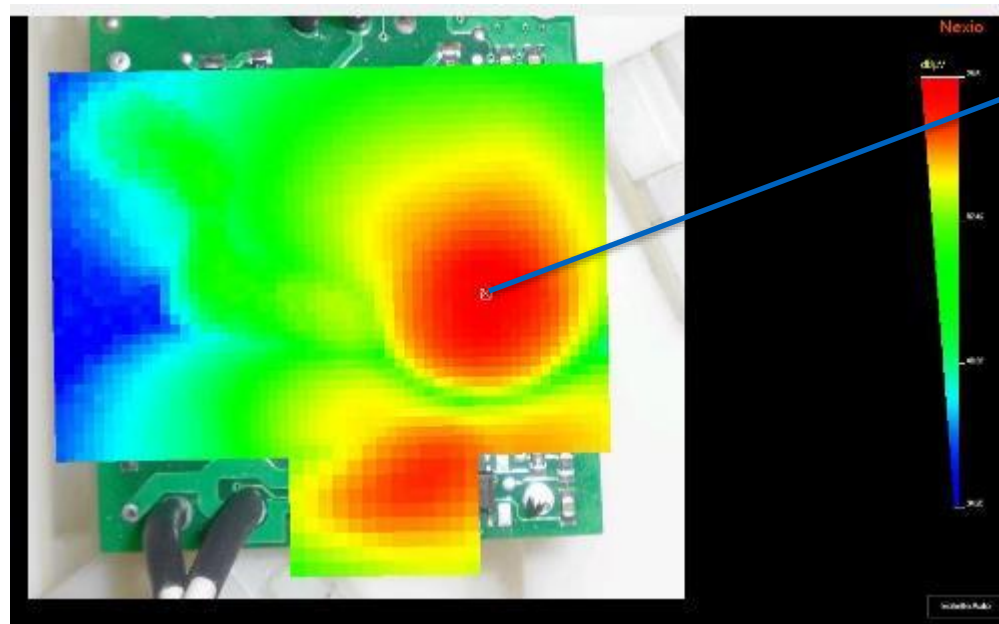
Connecteur J11 – Ez- 560MHz-565MHz

Business Case

Evolutions management

(Second sources, obsolescence, evolution, production checking)

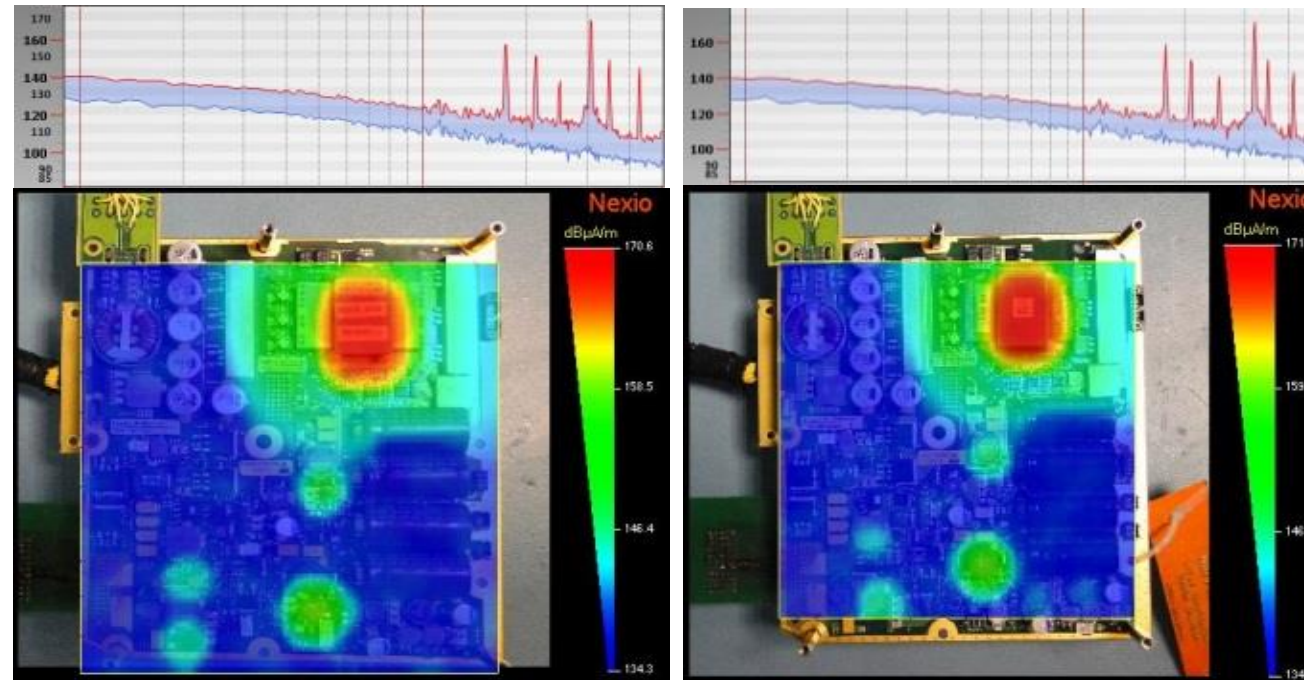
Duration of study: ½ day



Business Case

Evolutions management

(Second sources, obsolescence, evolution, production checking)



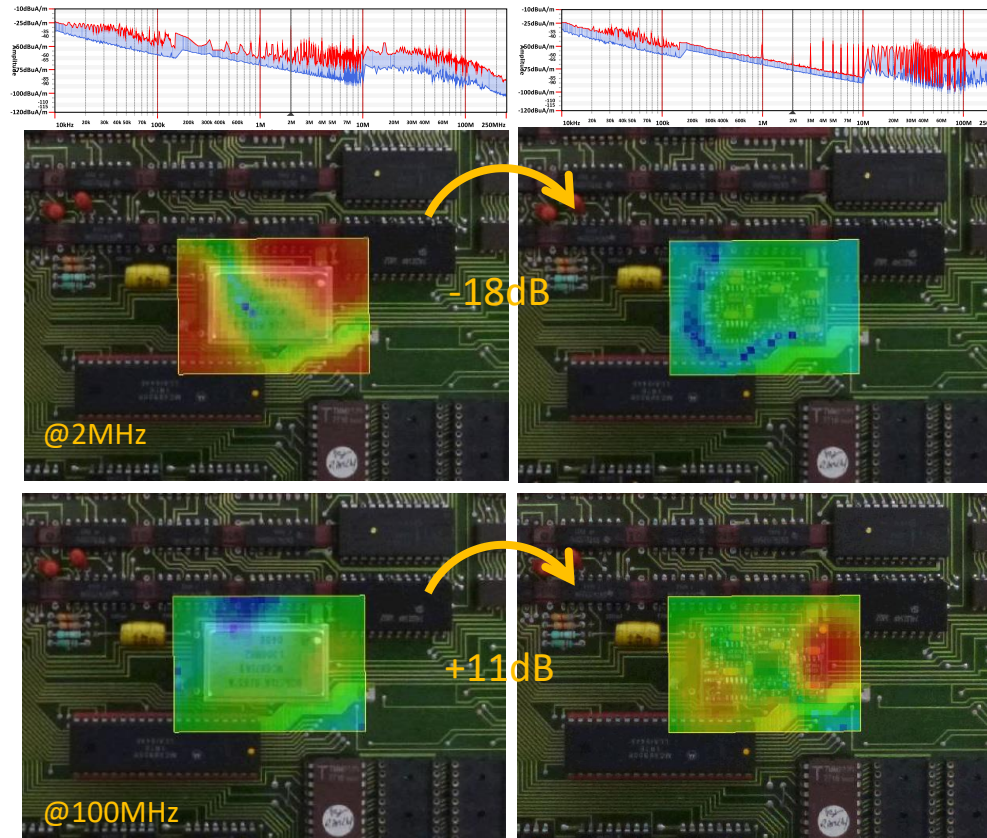
Made in EU

Made in ASIA

Business Case

Evolutions management

(Second sources, obsolescence, evolution, production checking)



Old version

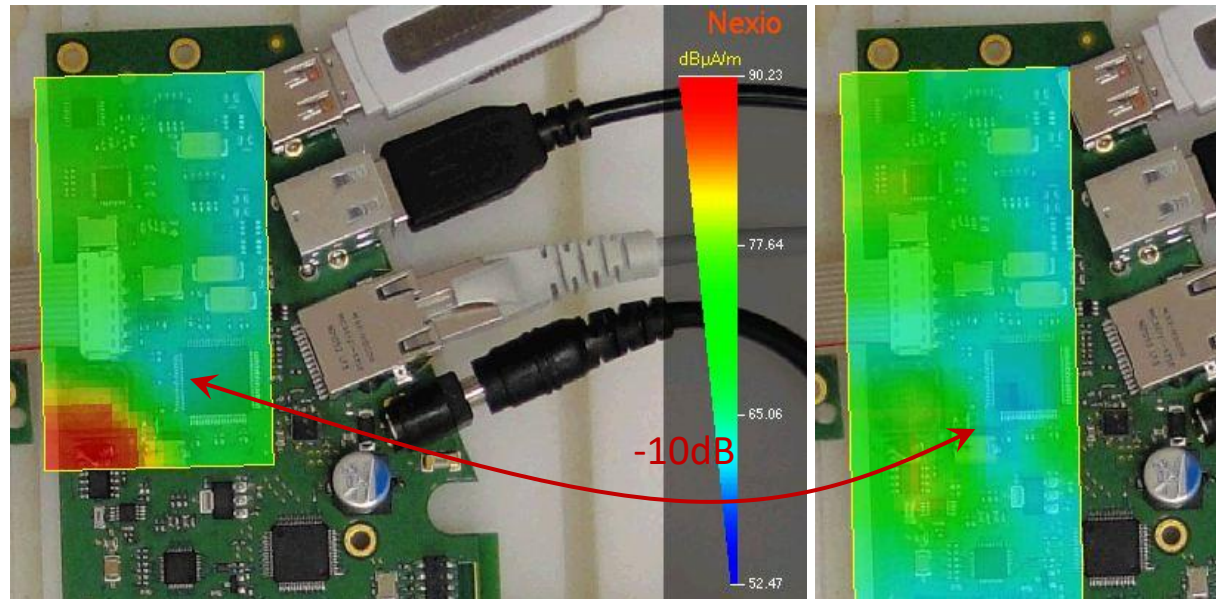
New version



Business Case

EMC design support

(Technology selection, Cost reduction, Protection optimization)

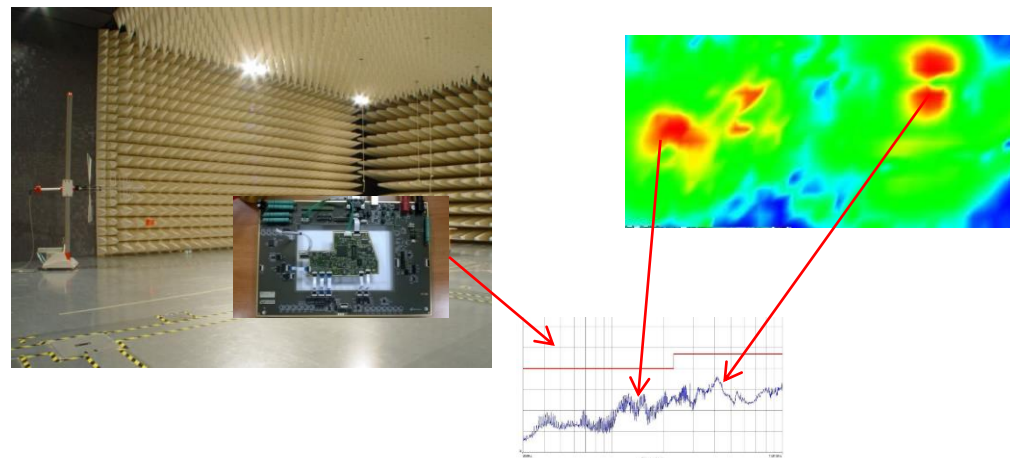
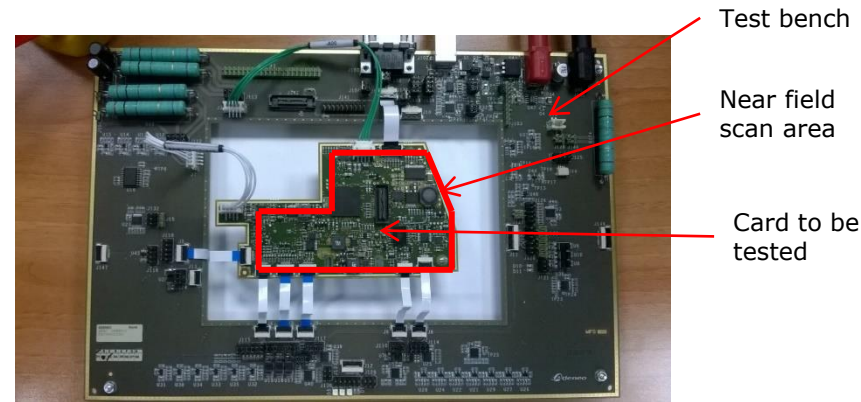


Reference

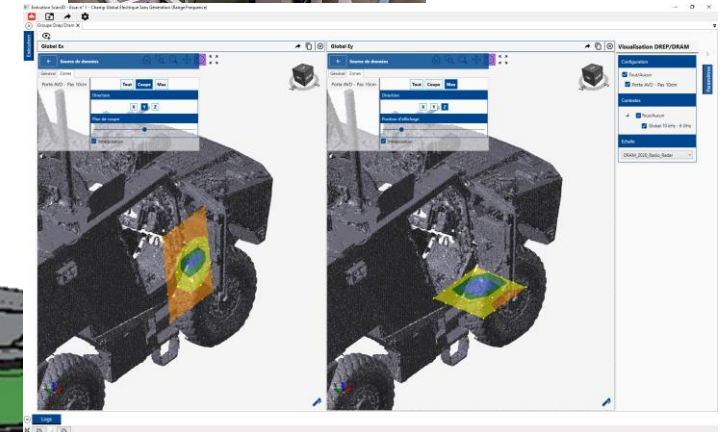
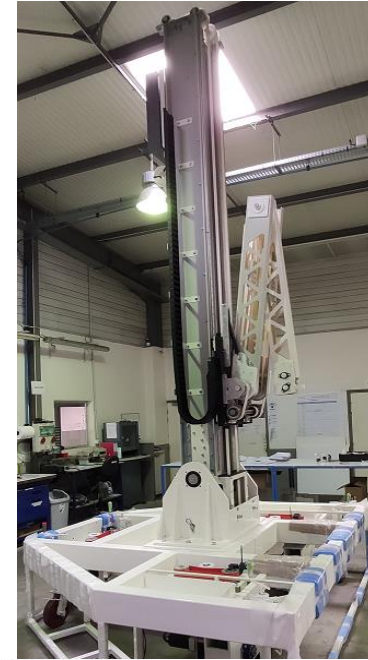
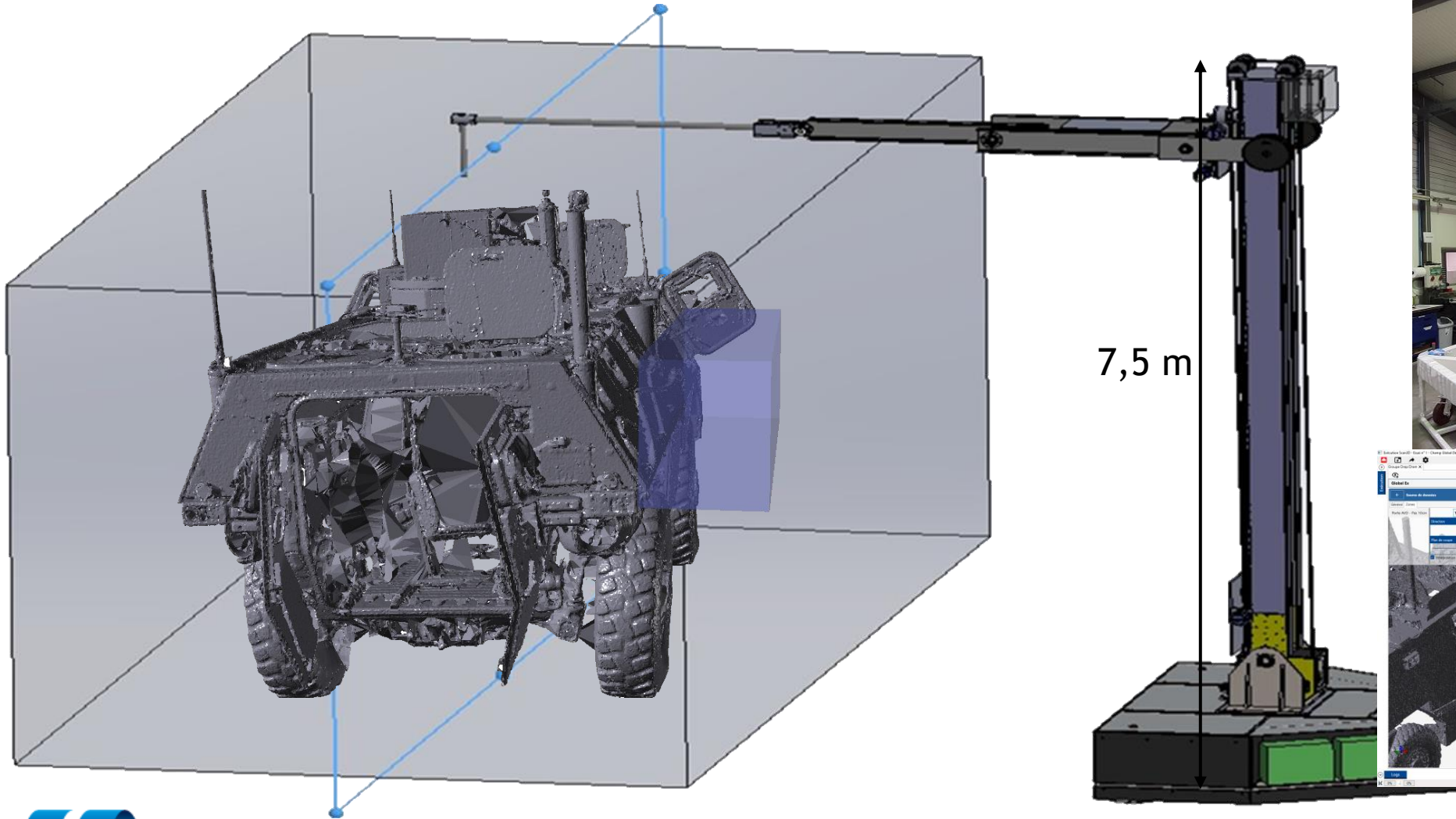
Reference+snubber

Business Case

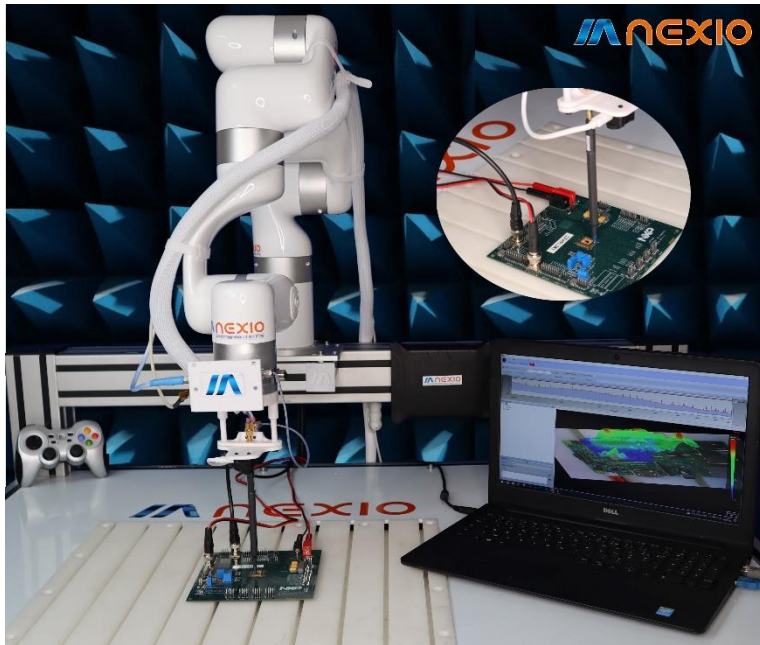
Industrialization and Validation of subsystems



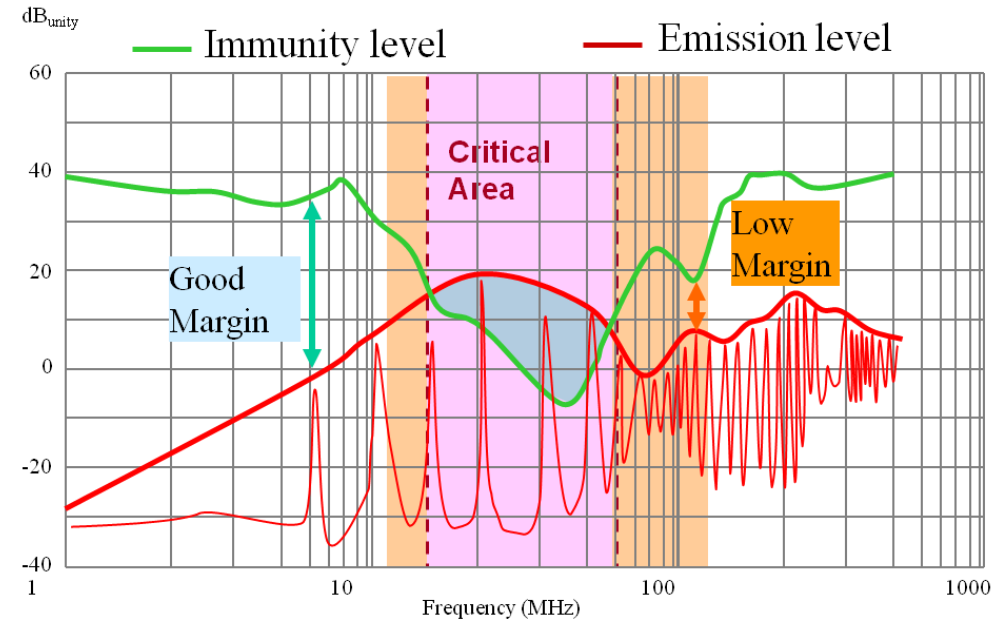
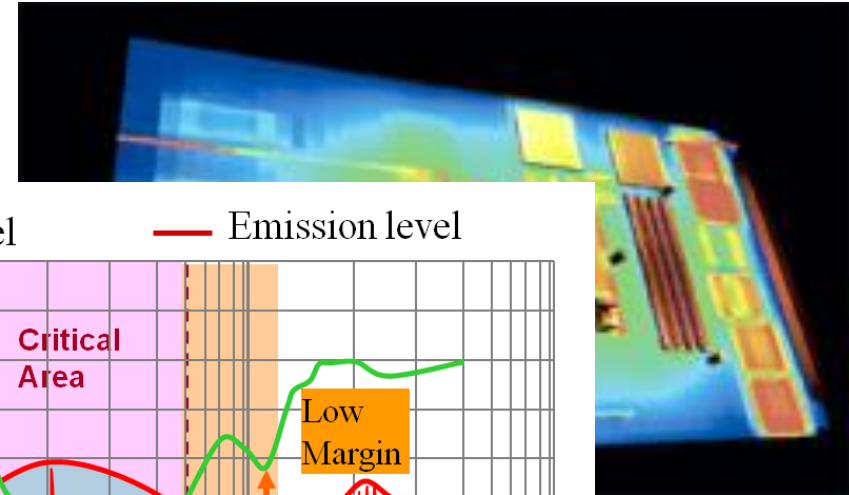
Another Near Field Scanner



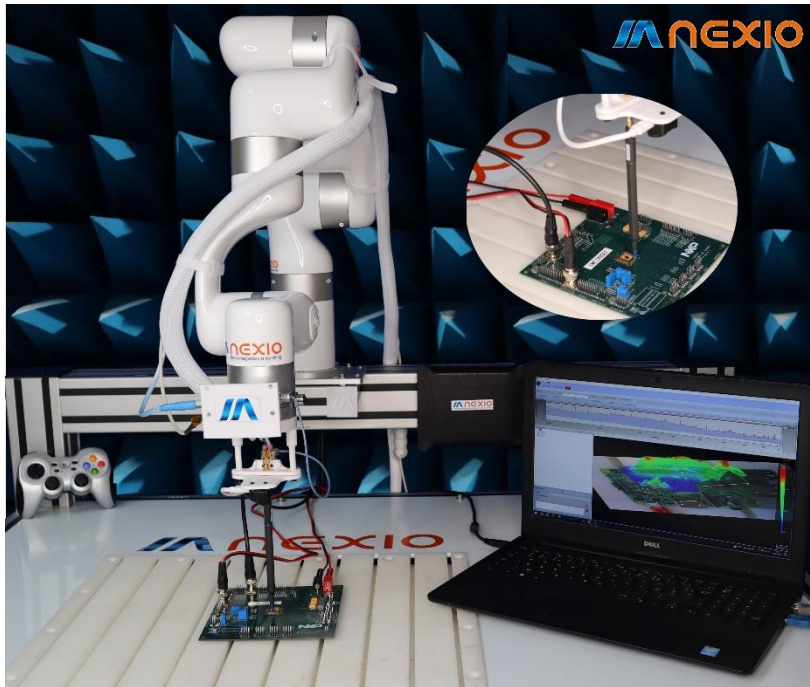
The Goal



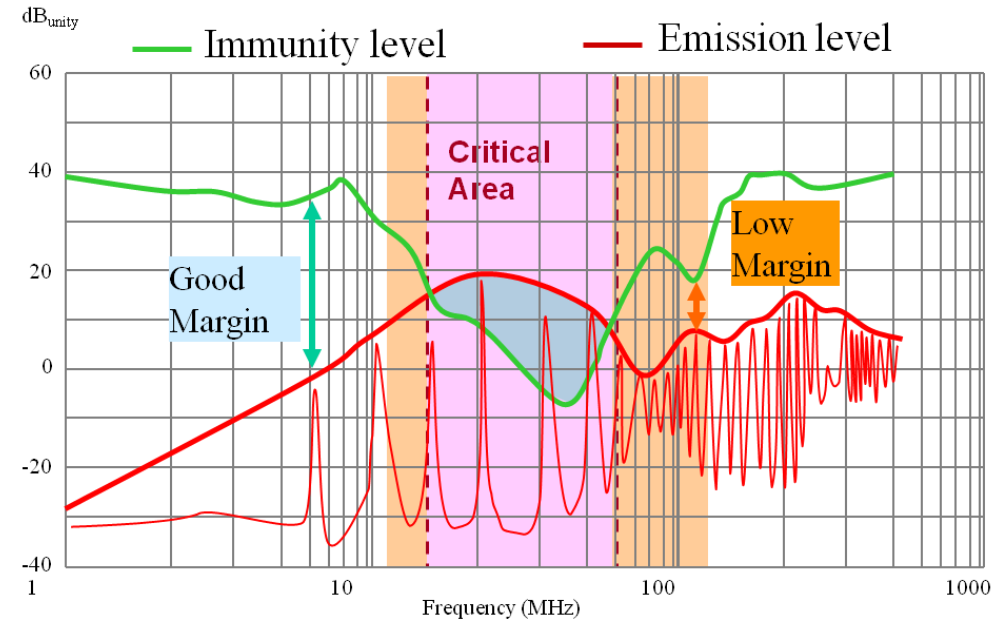
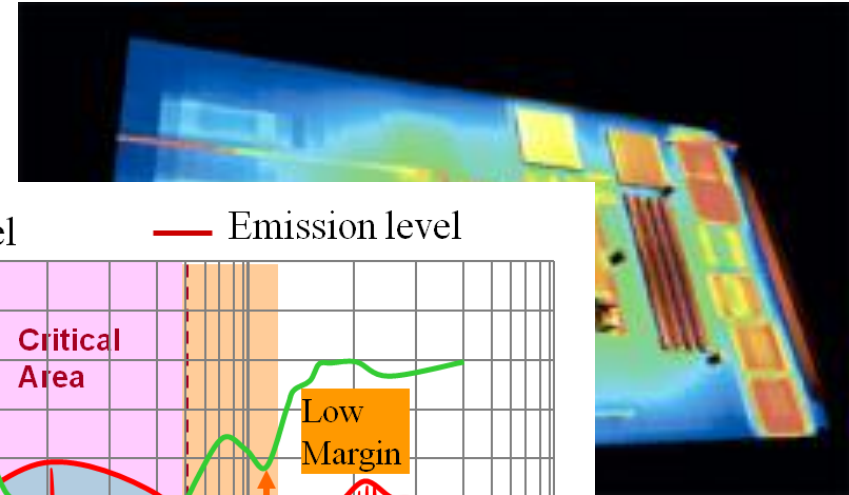
Design assistance



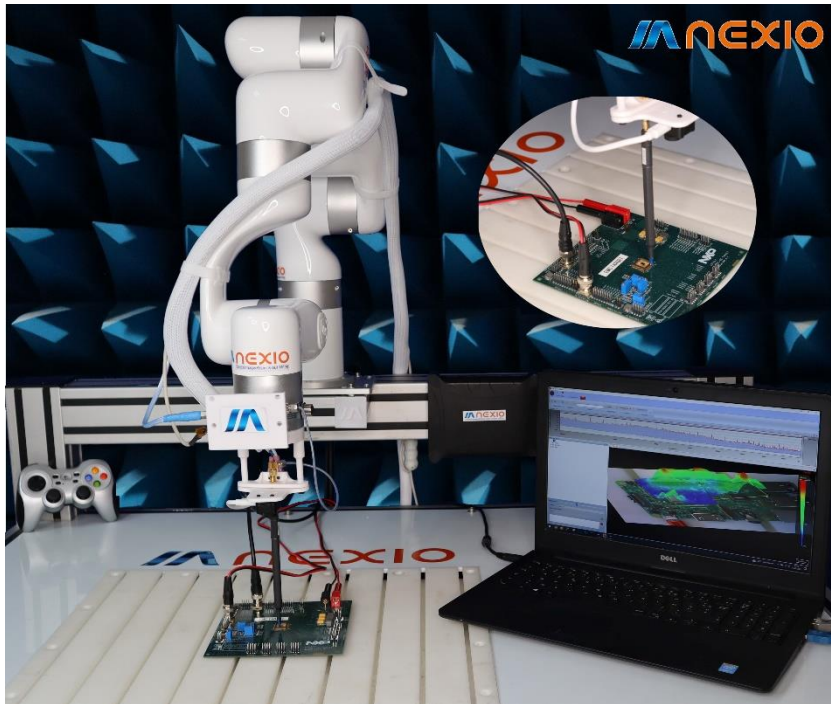
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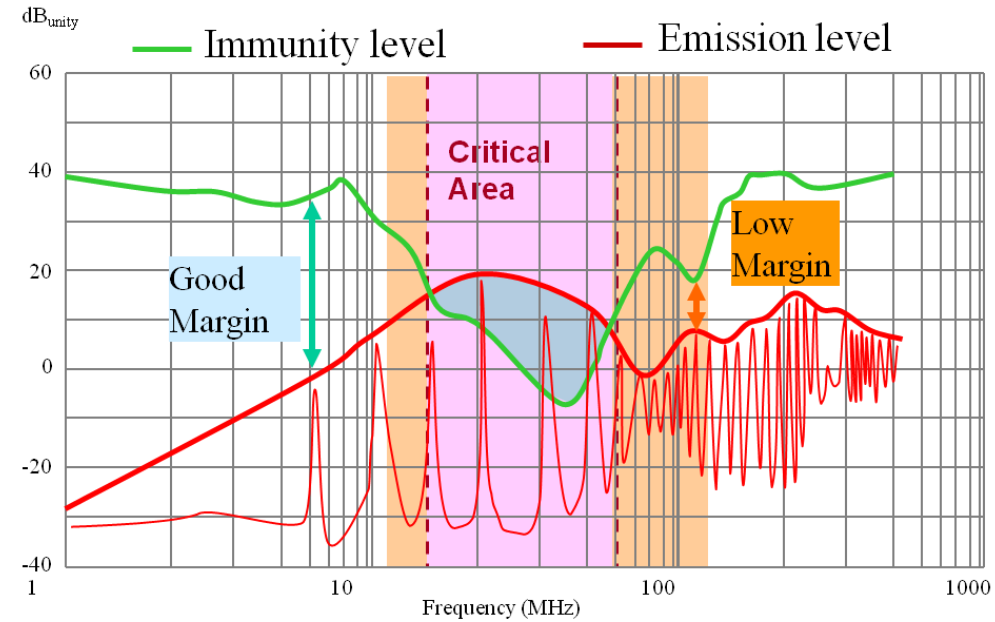
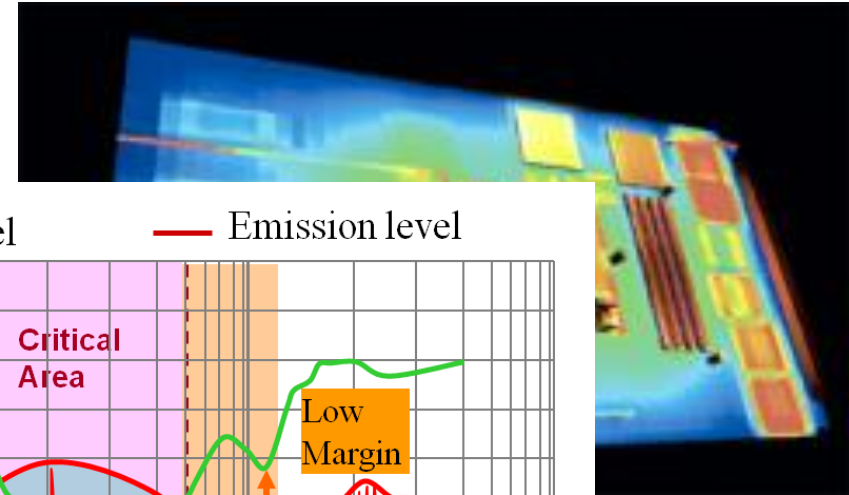
Design assistance



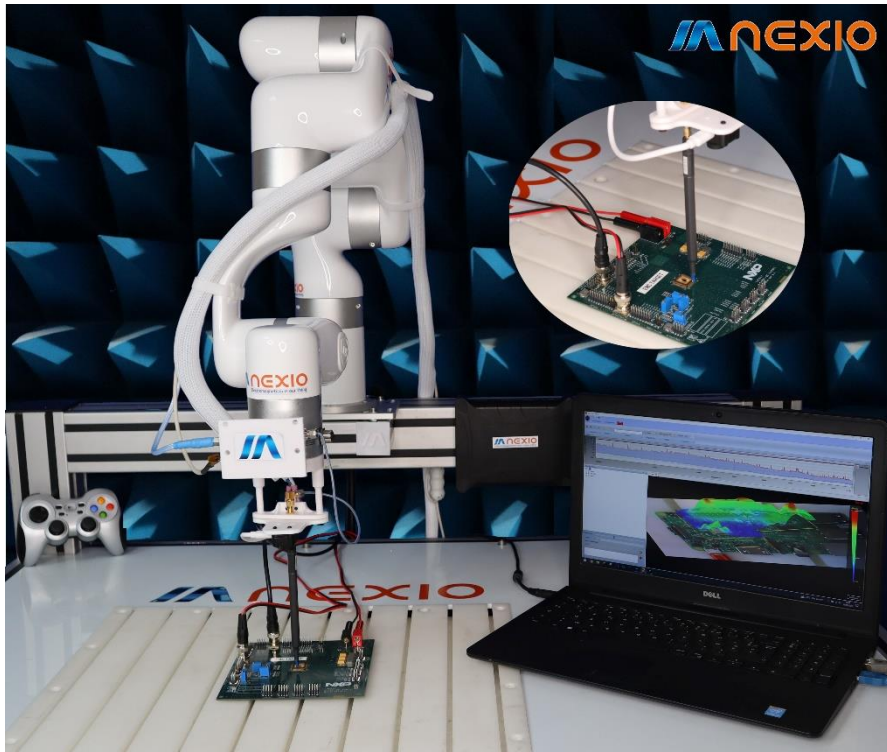
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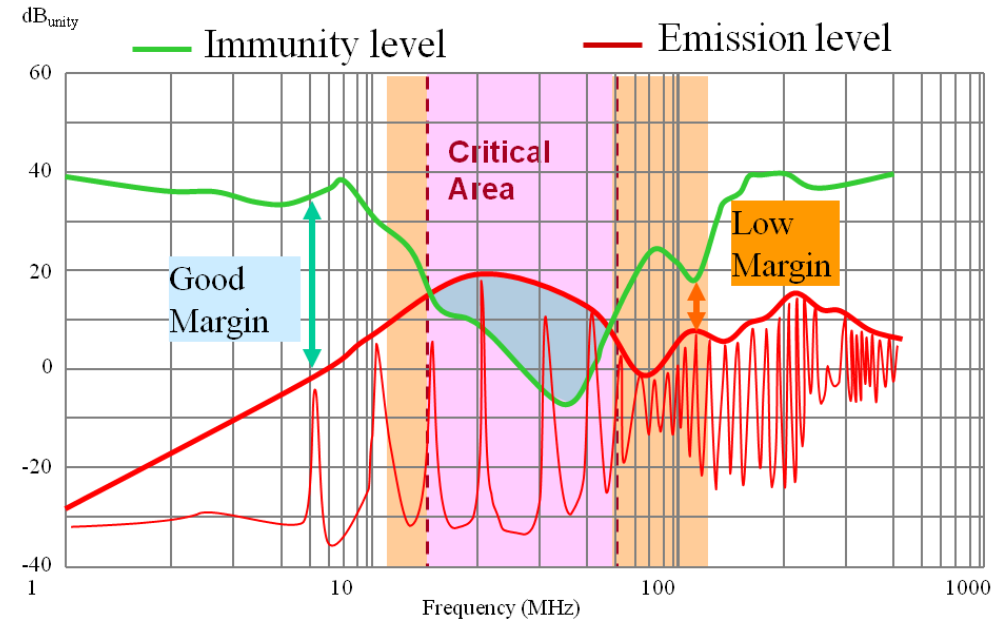
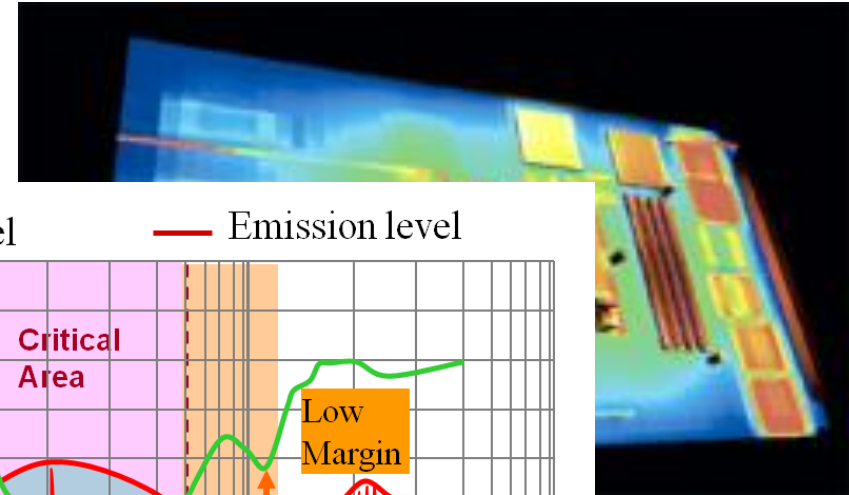
Design assistance



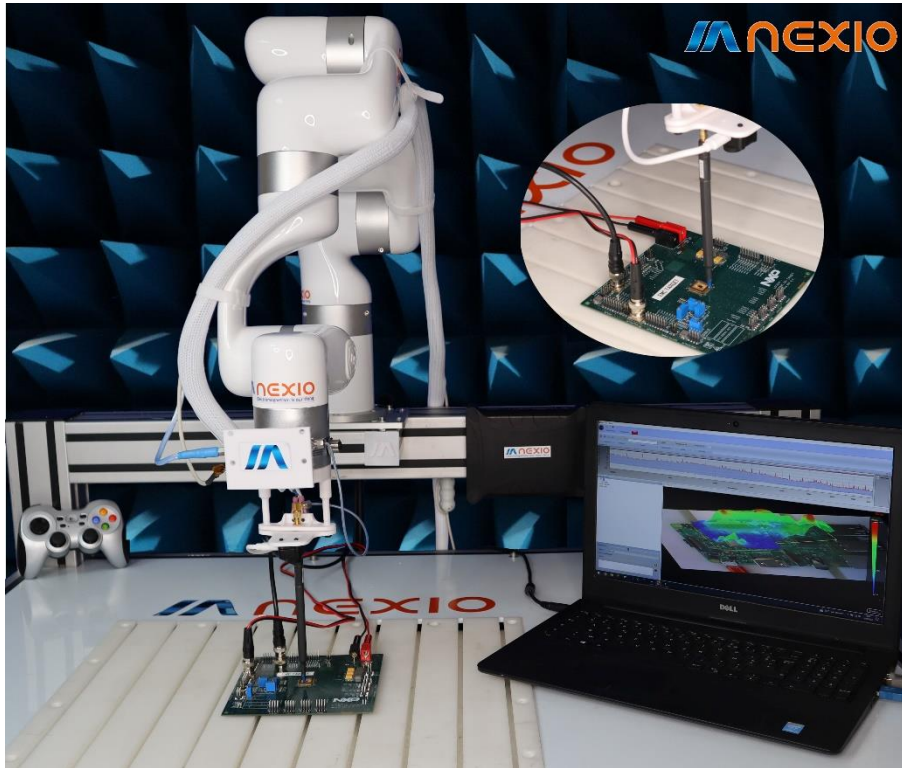
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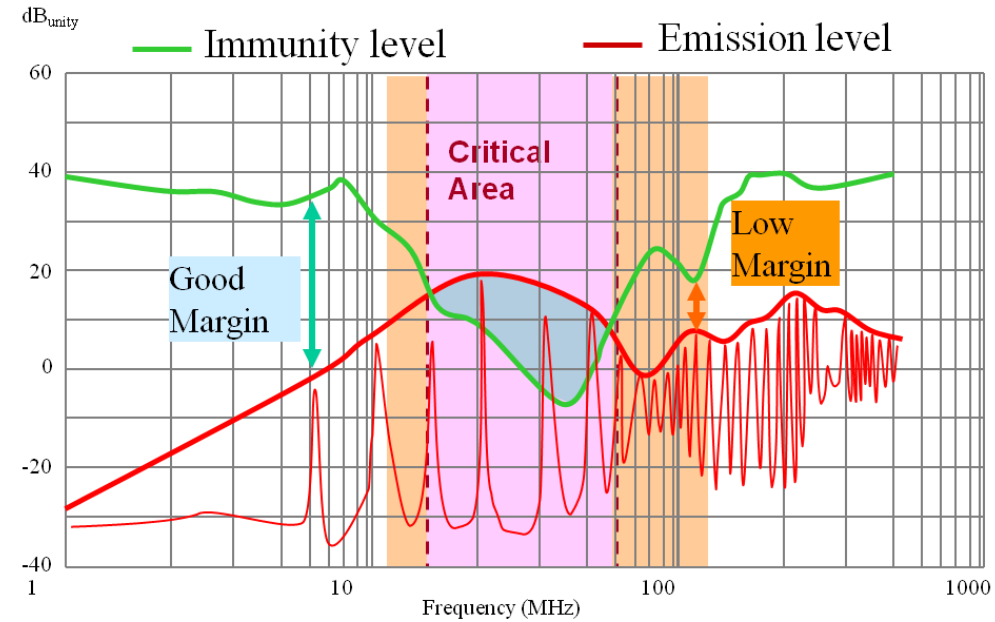
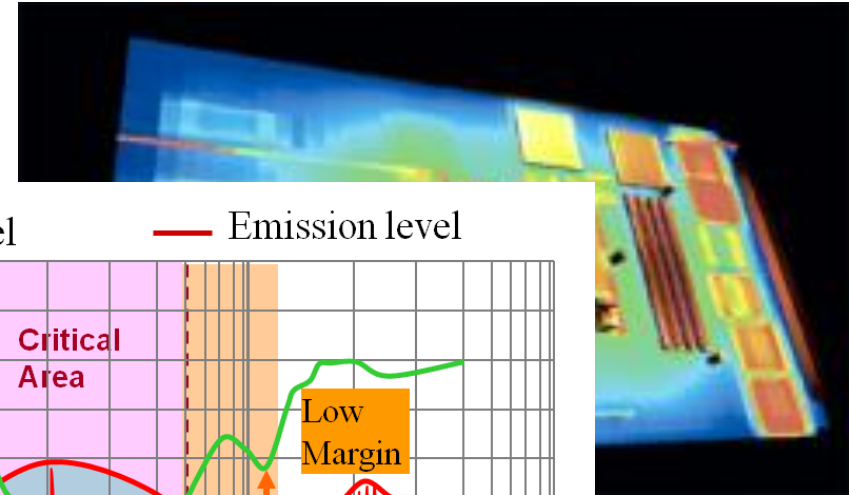
Design assistance



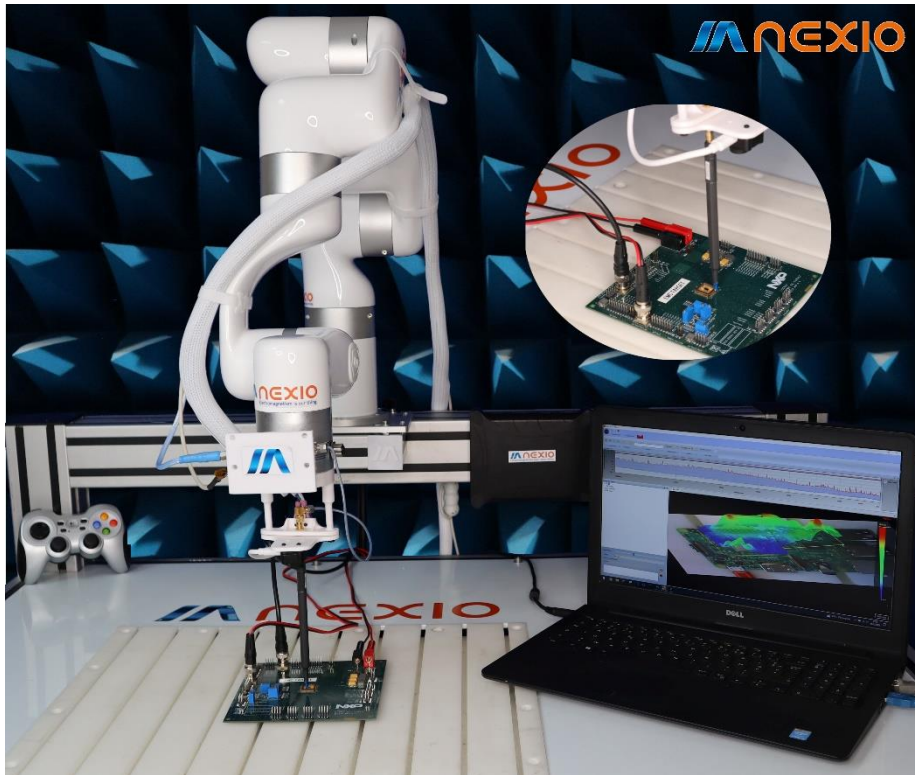
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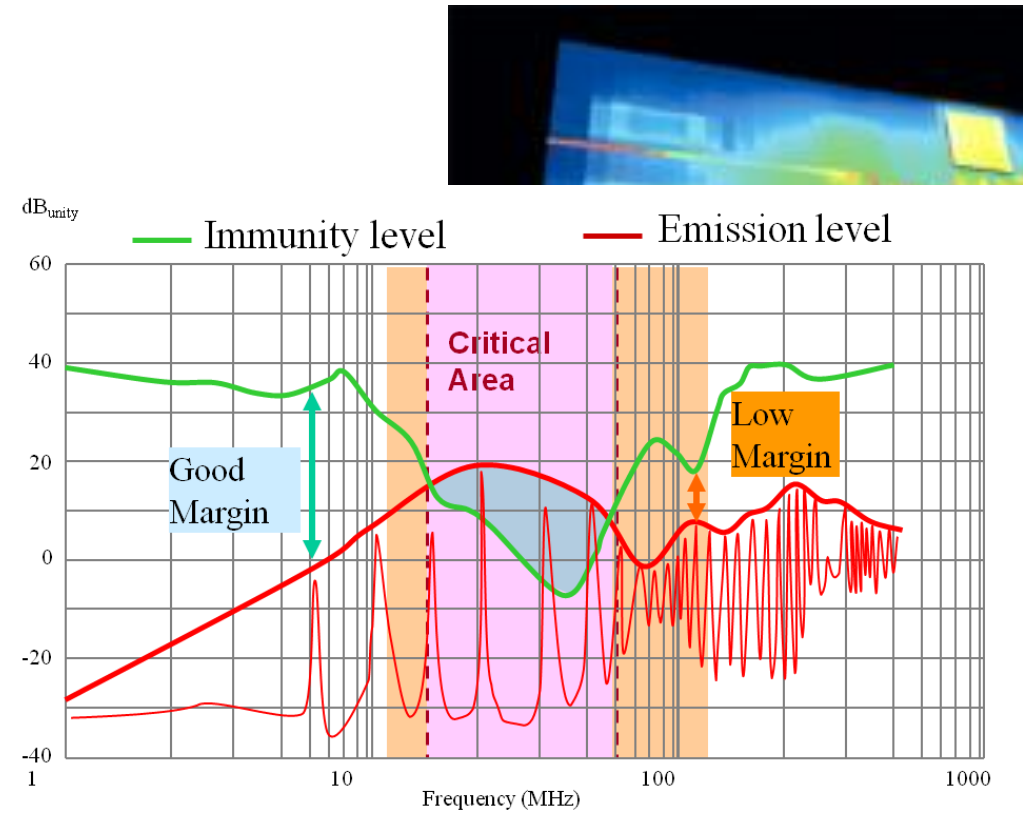
Design assistance



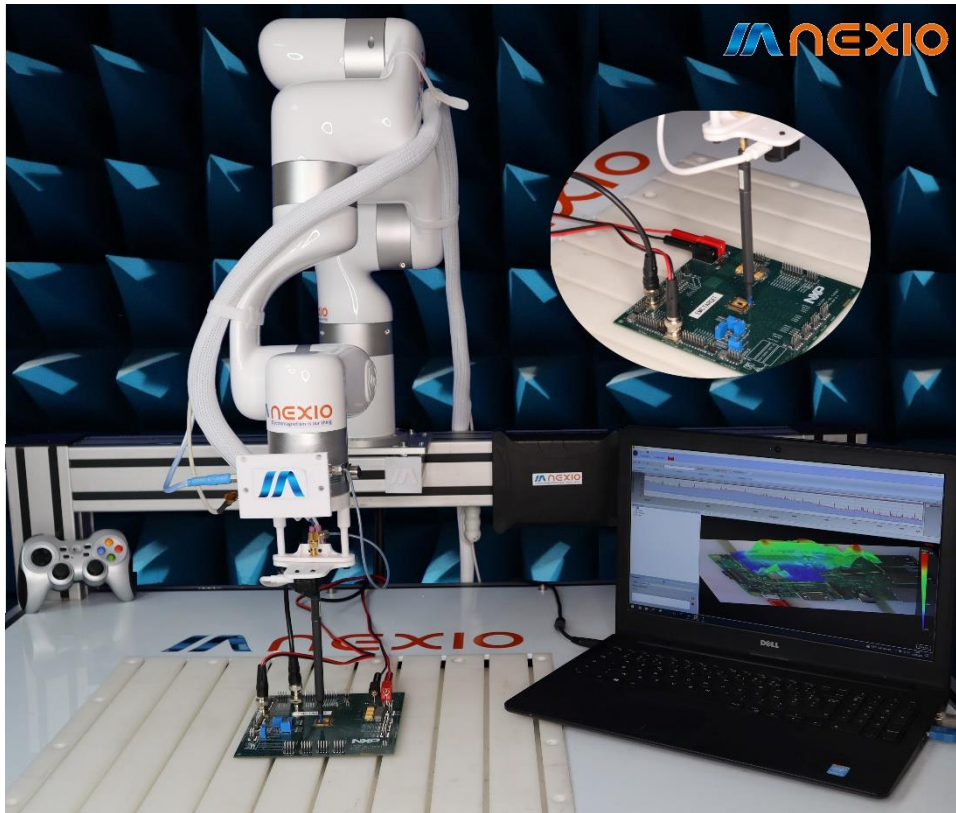
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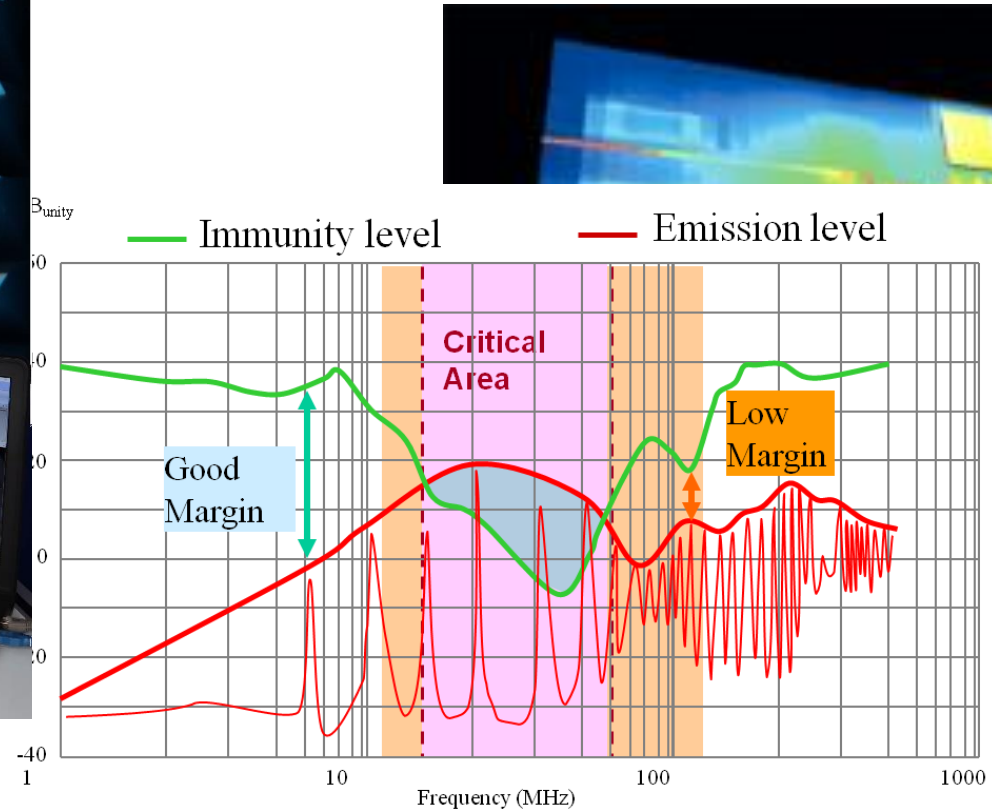
Design assistance



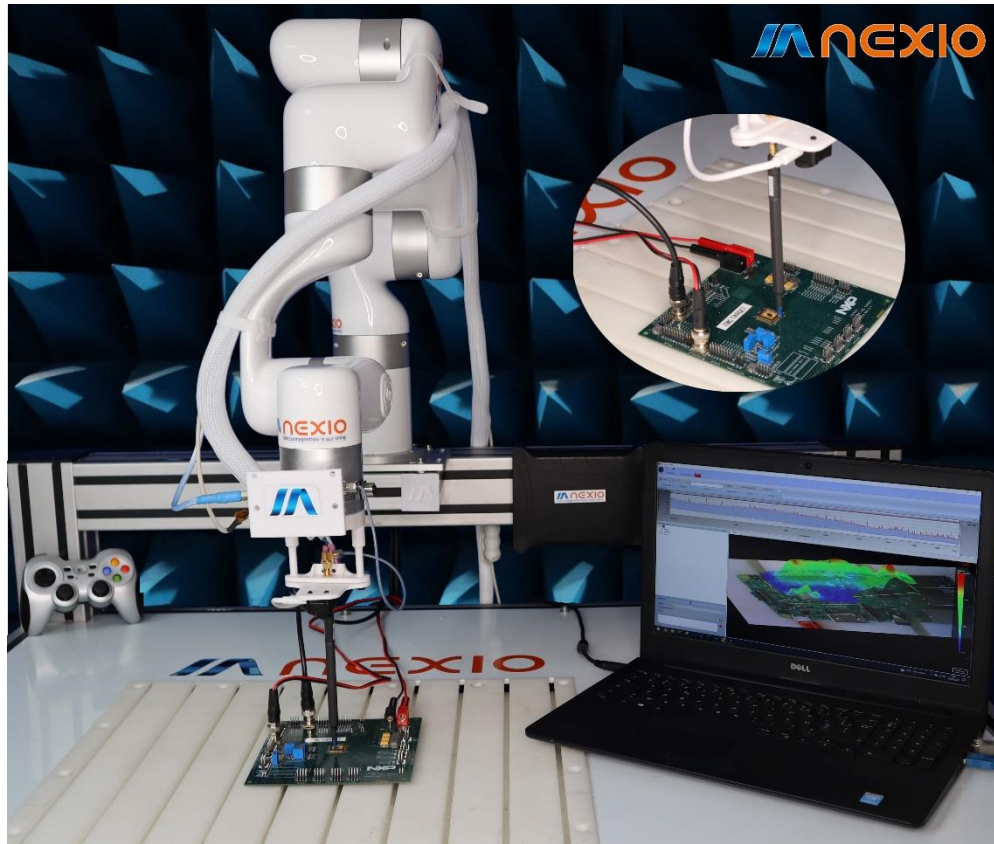
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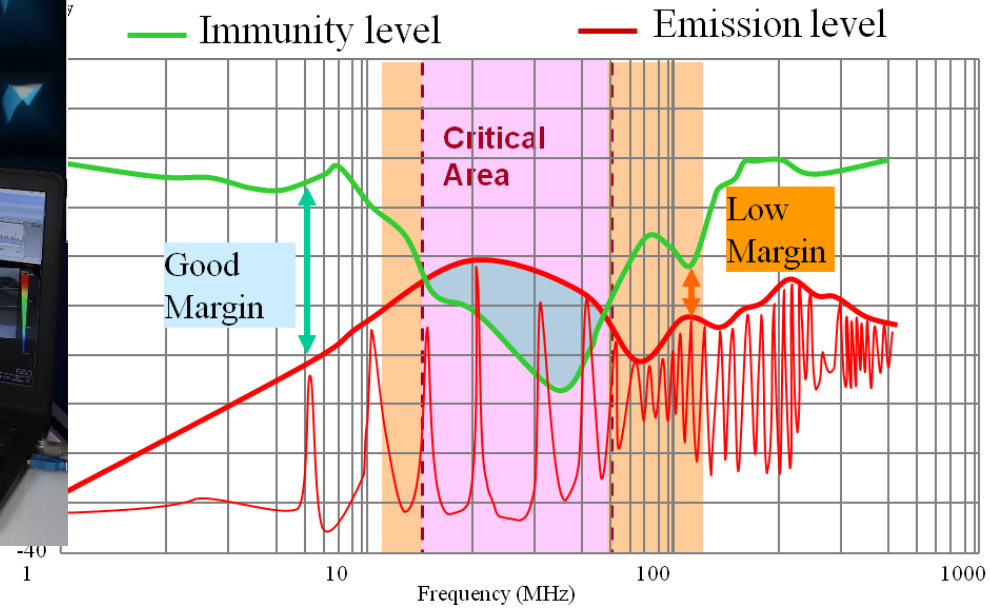
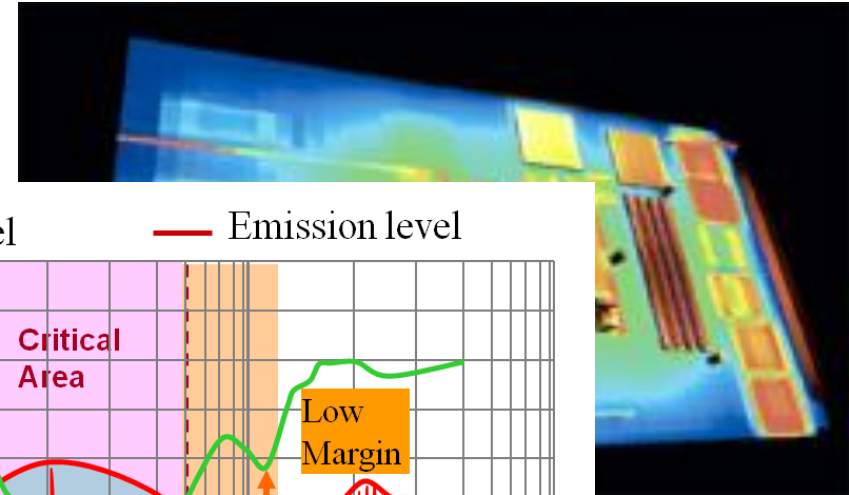
Design assistance



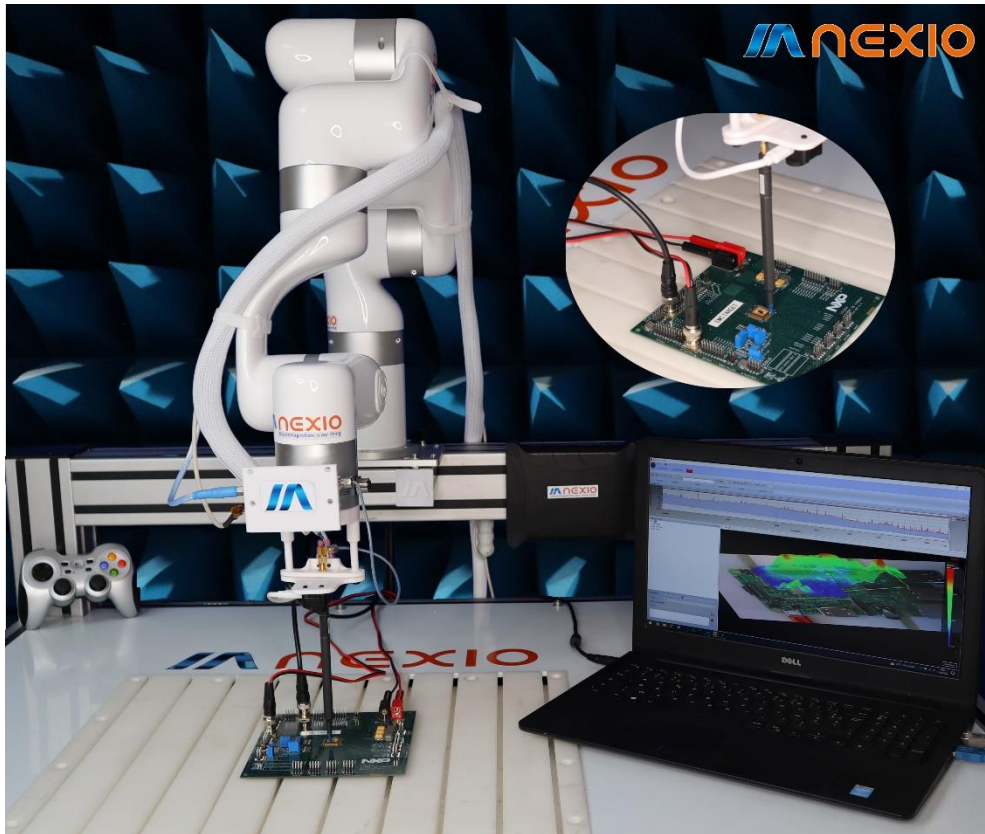
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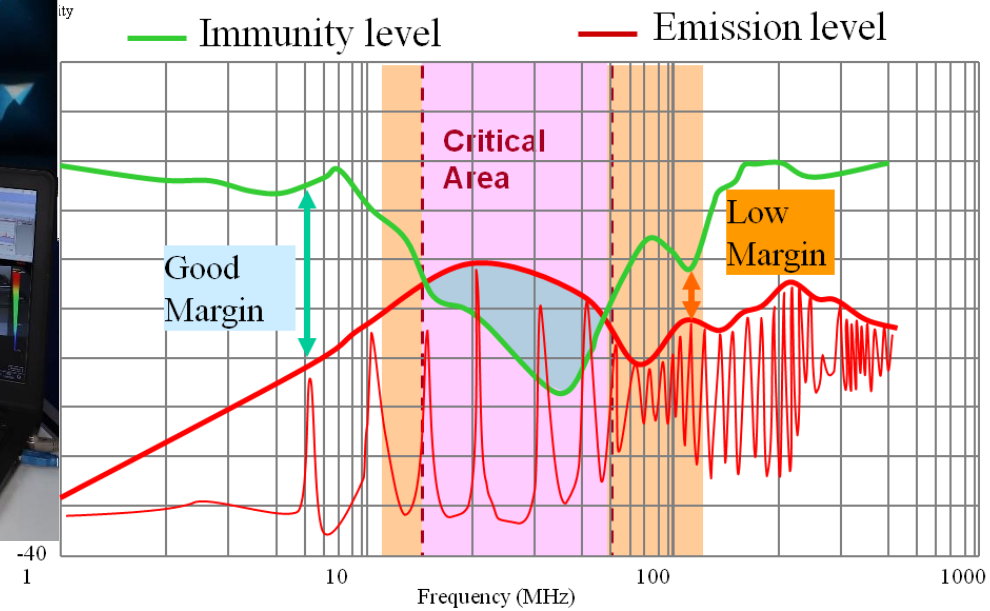
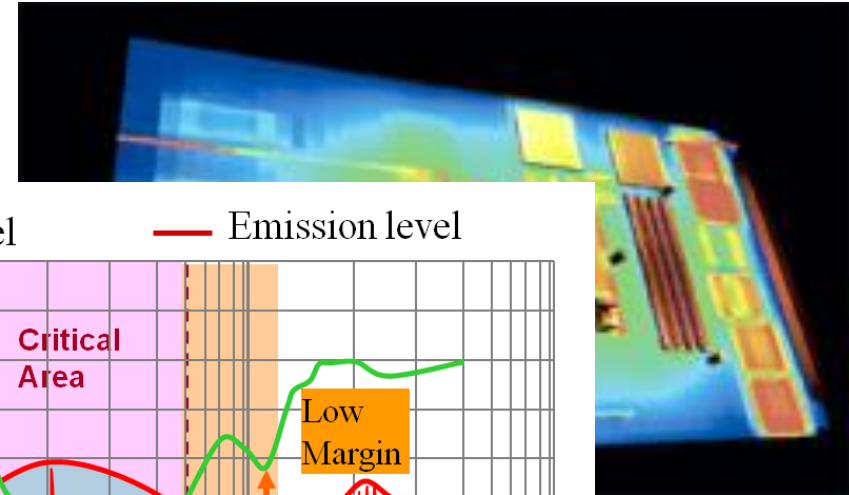
Design assistance



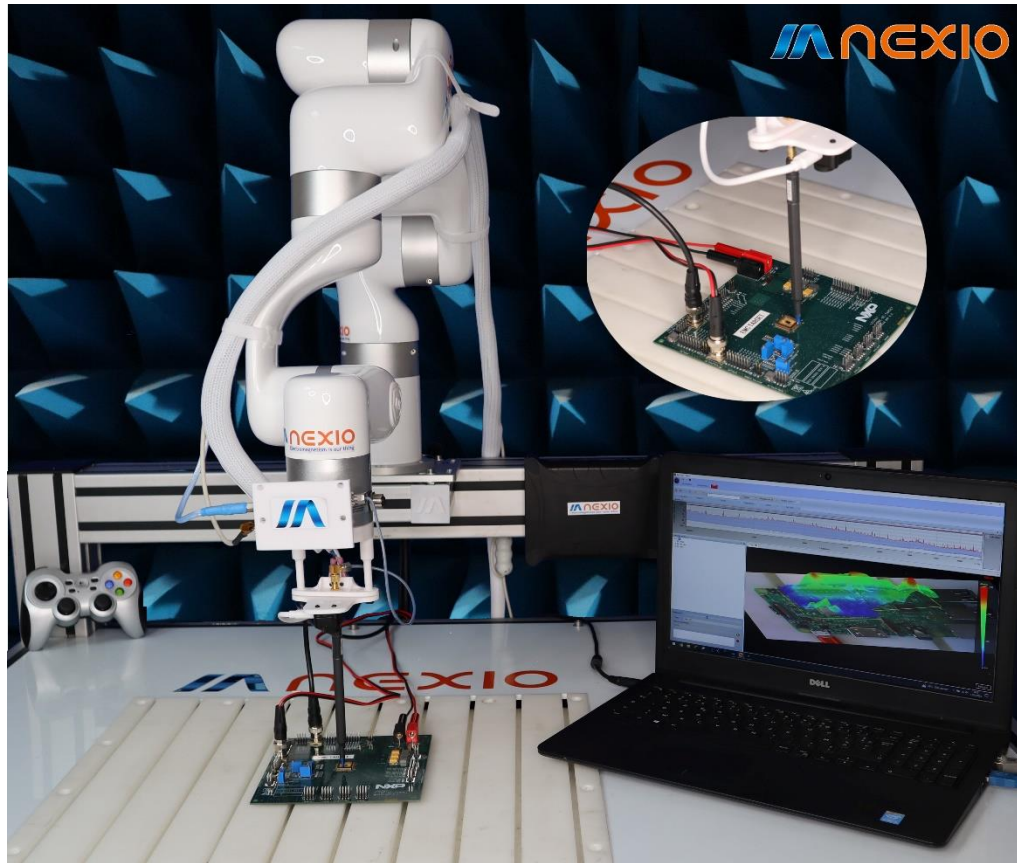
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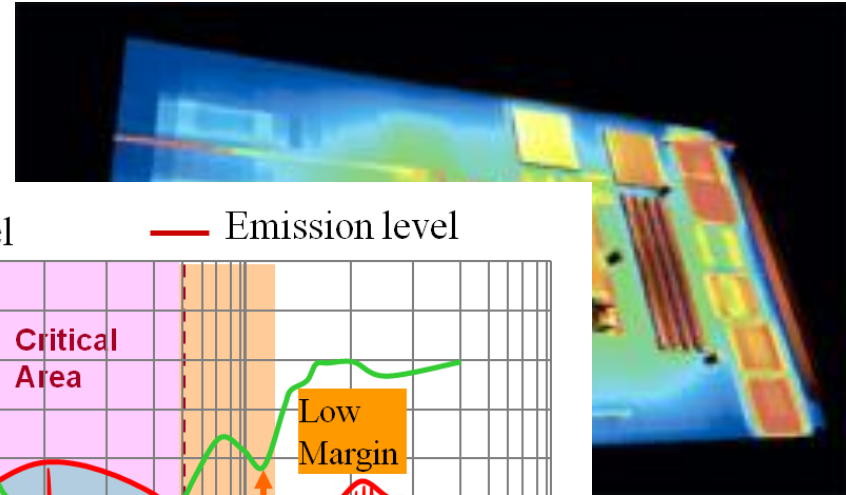
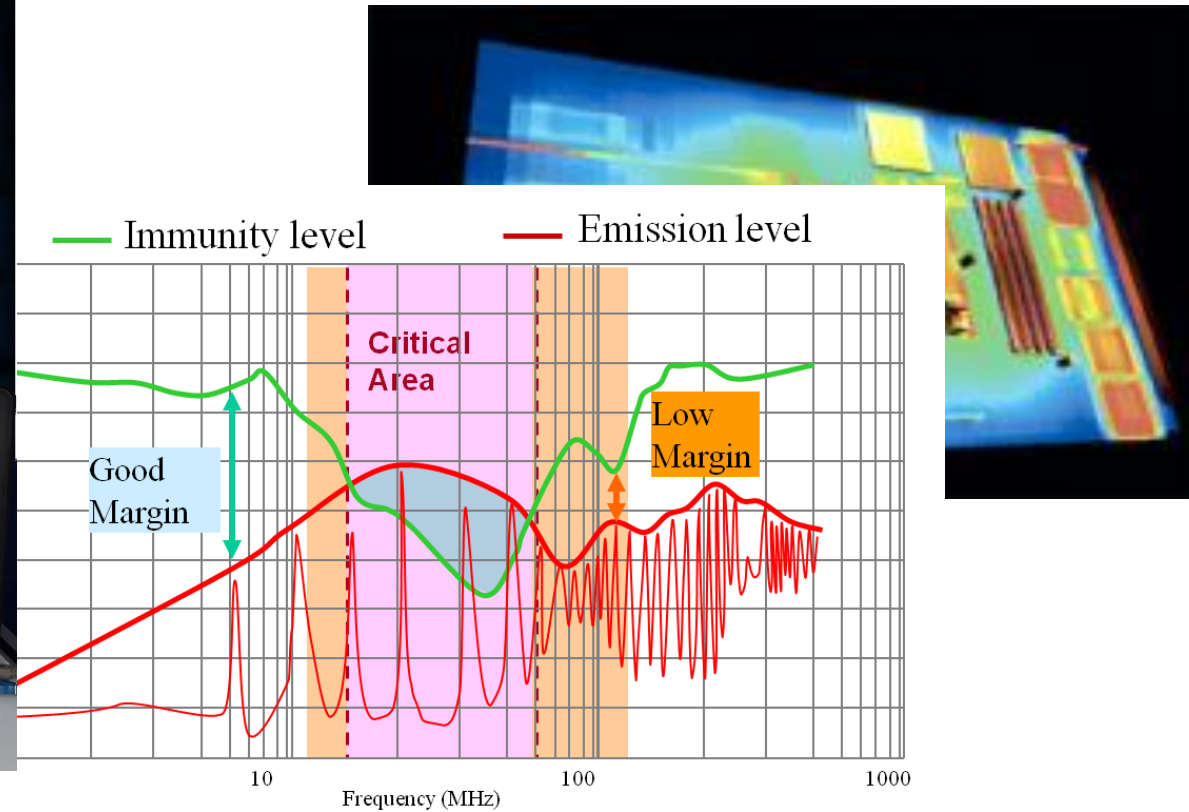
Design assistance



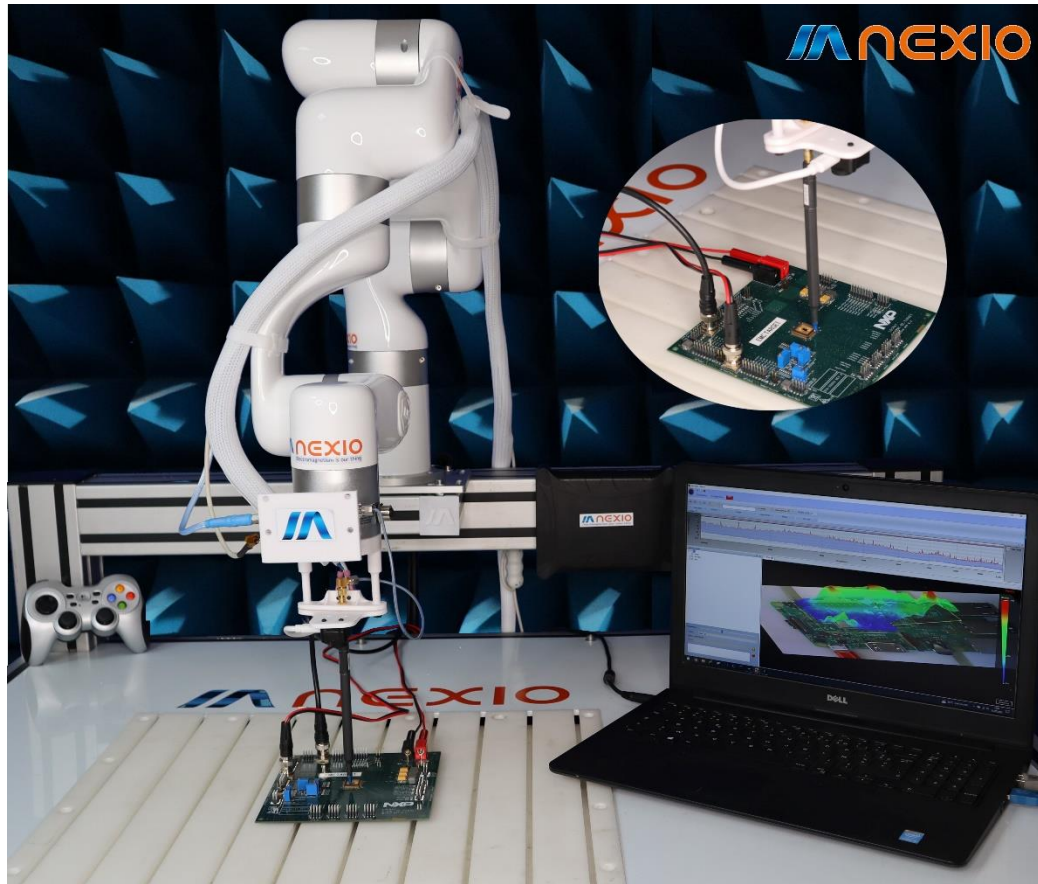
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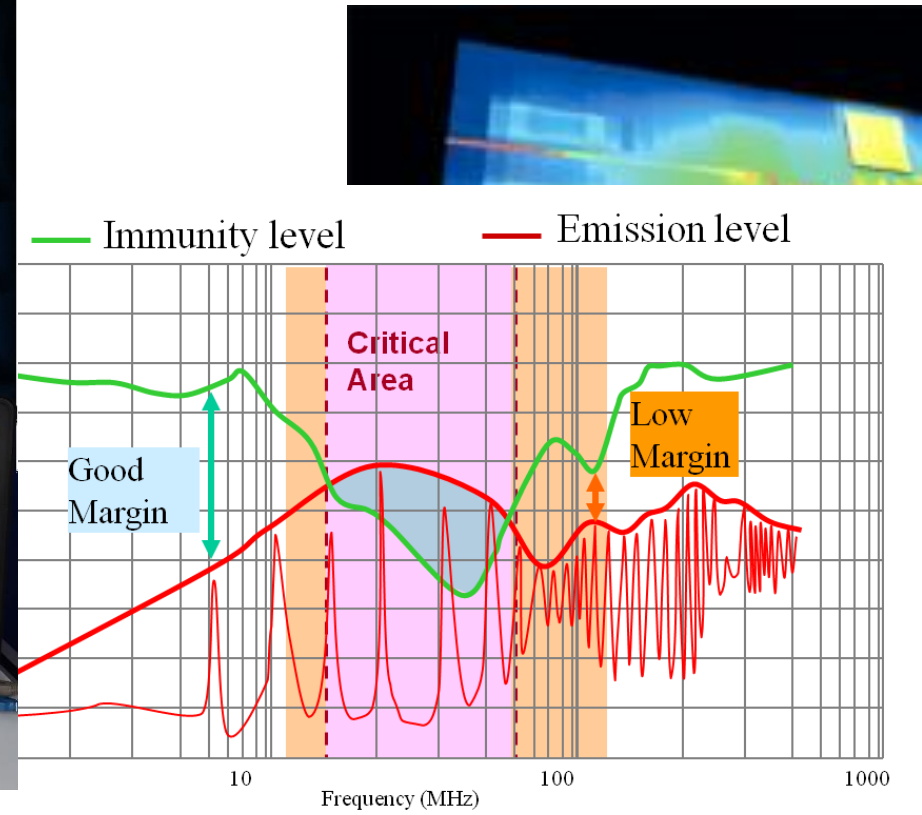
Design assistance



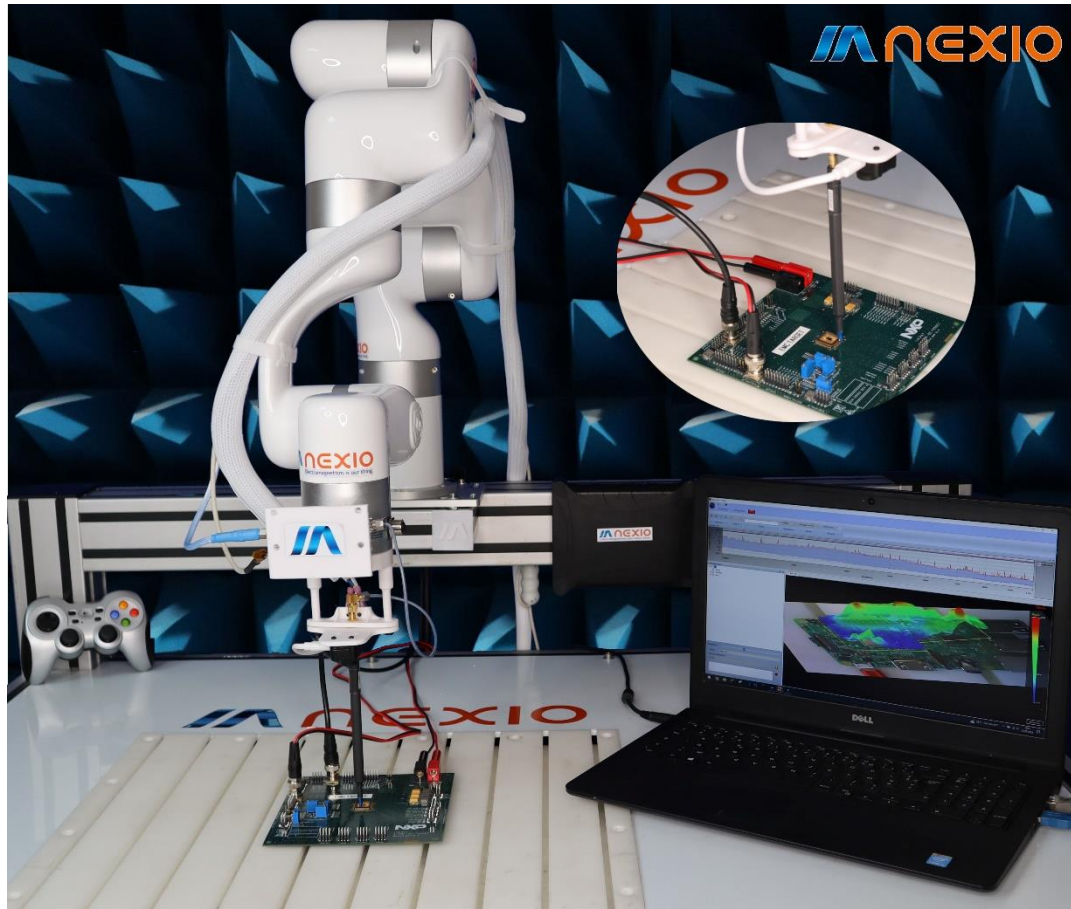
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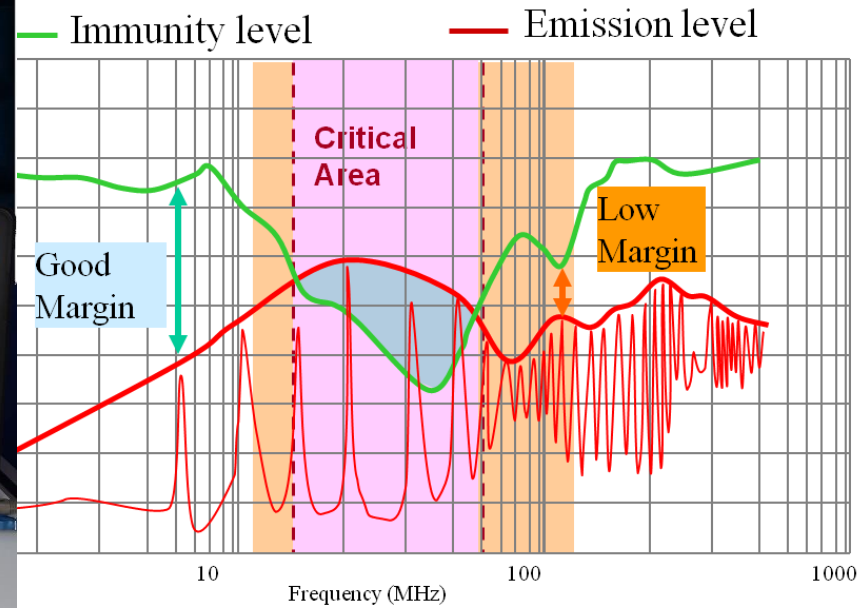
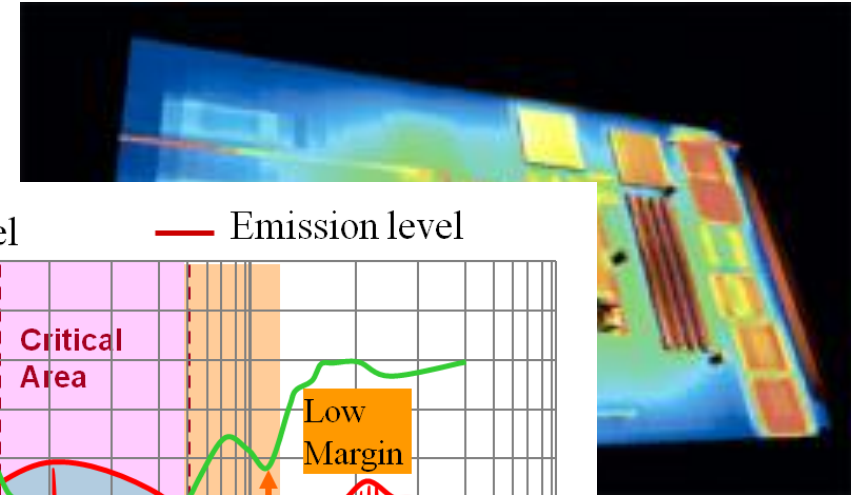
Design assistance



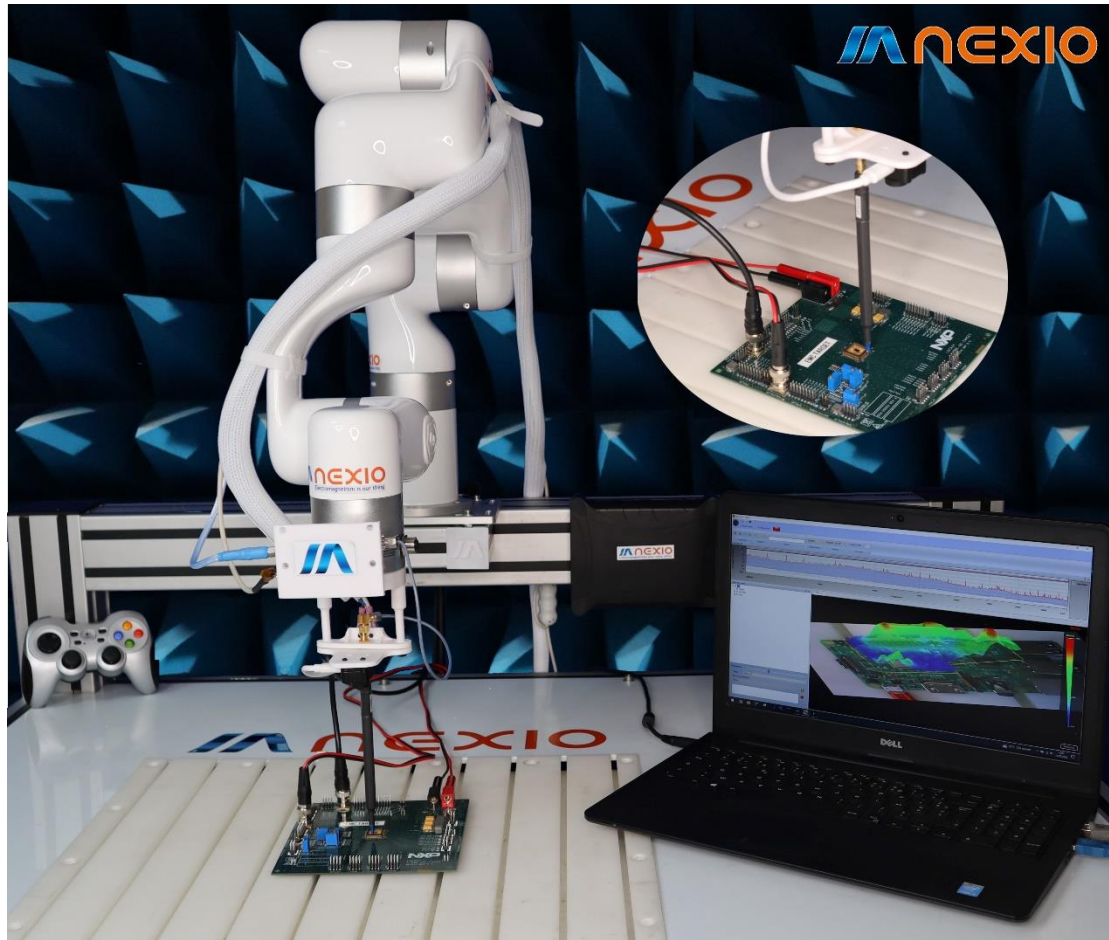
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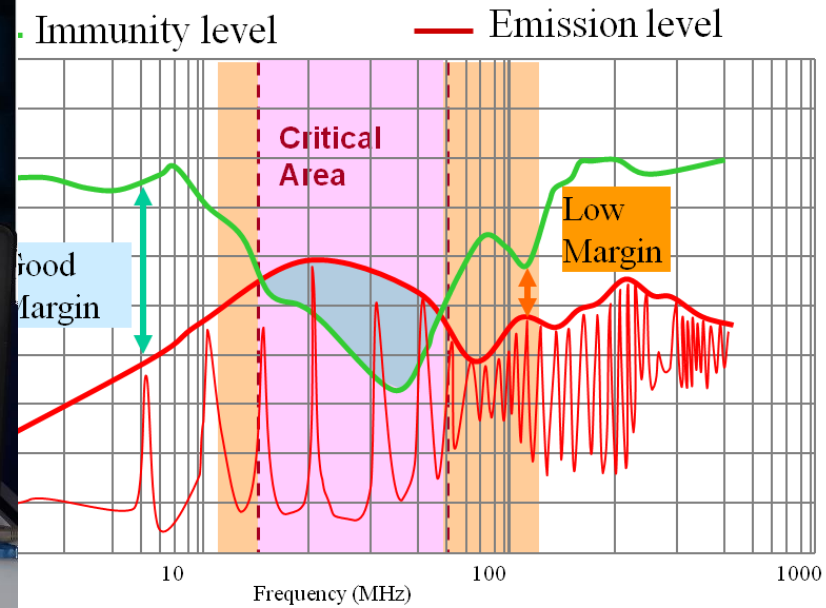
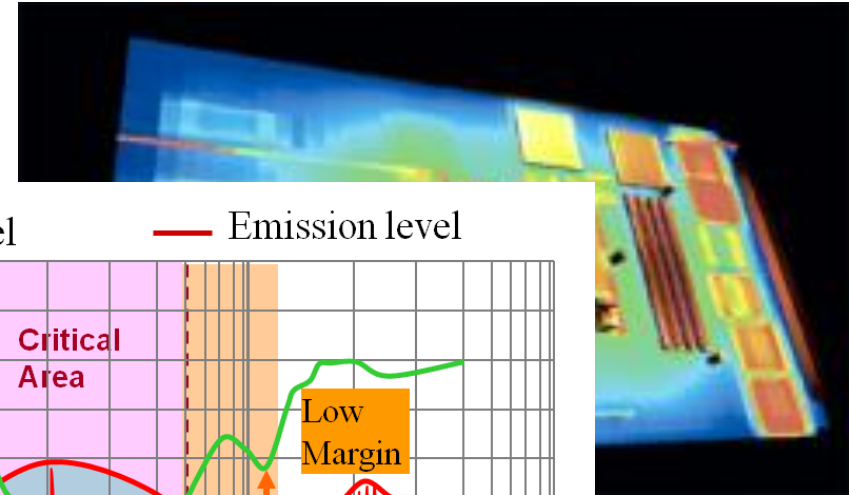
Design assistance



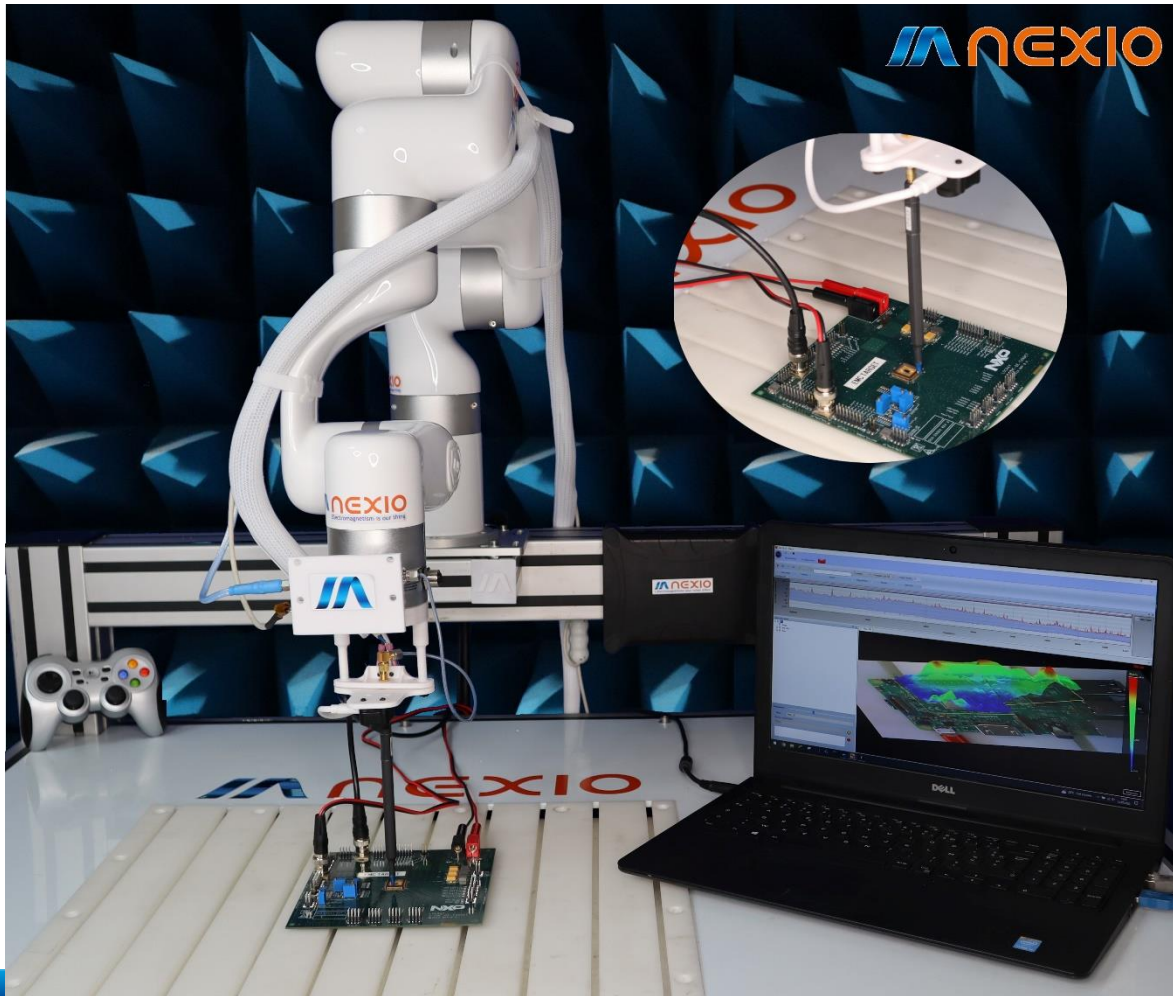
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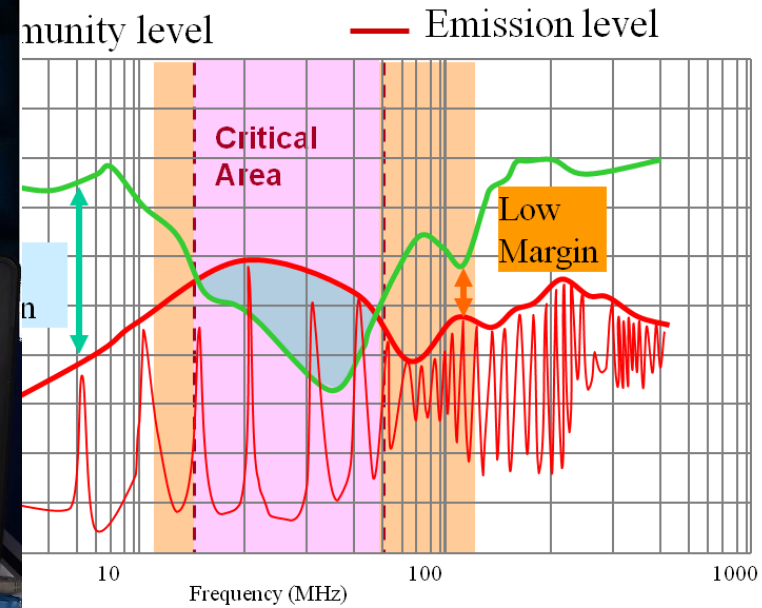
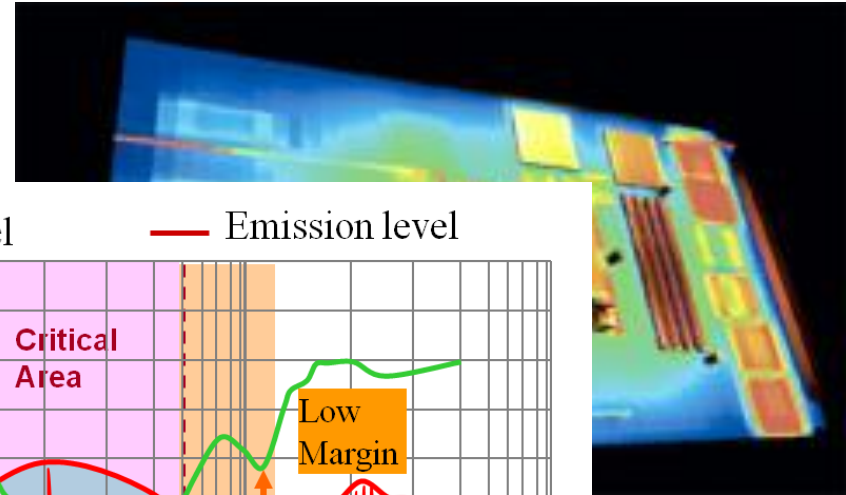
Design assistance



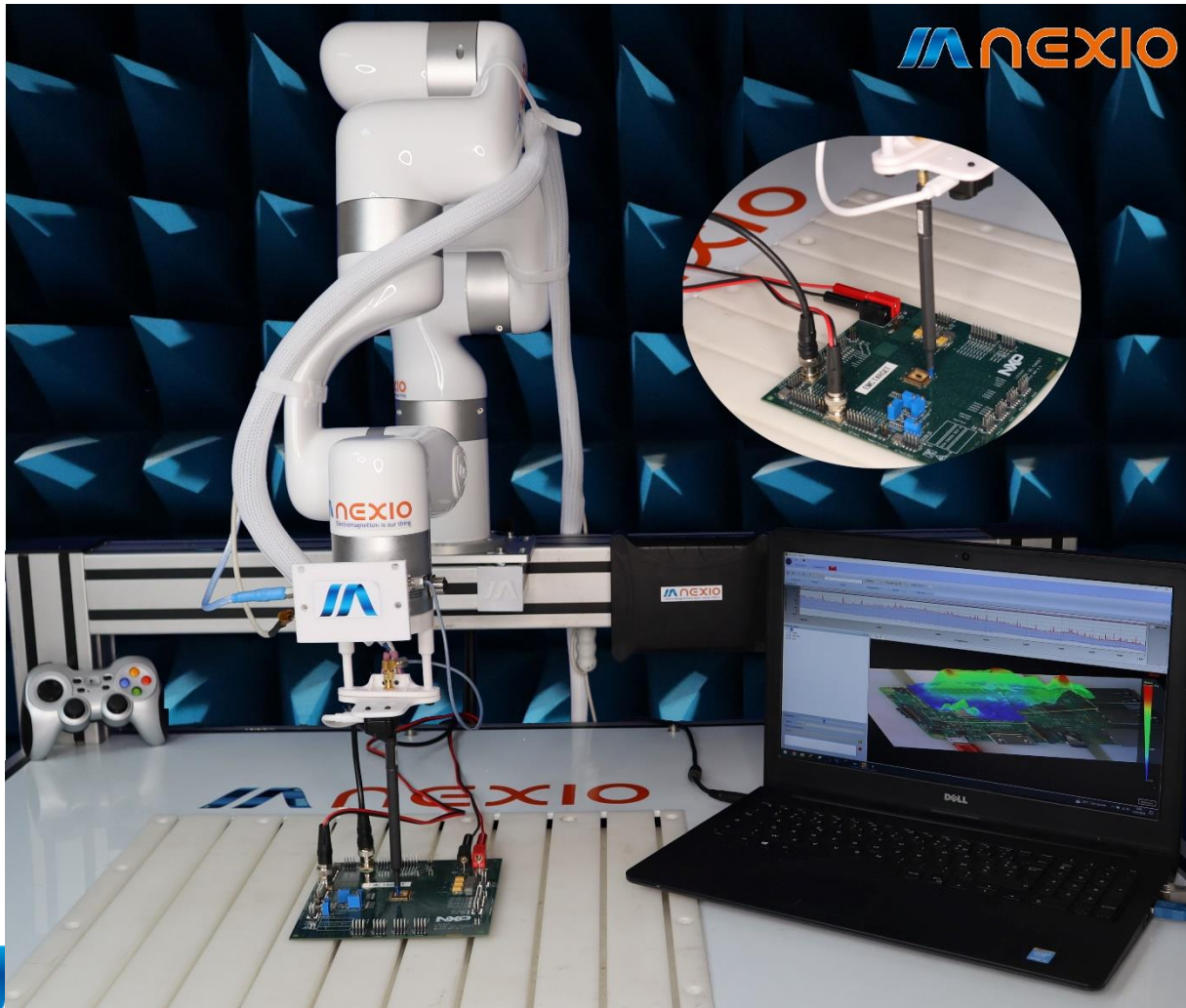
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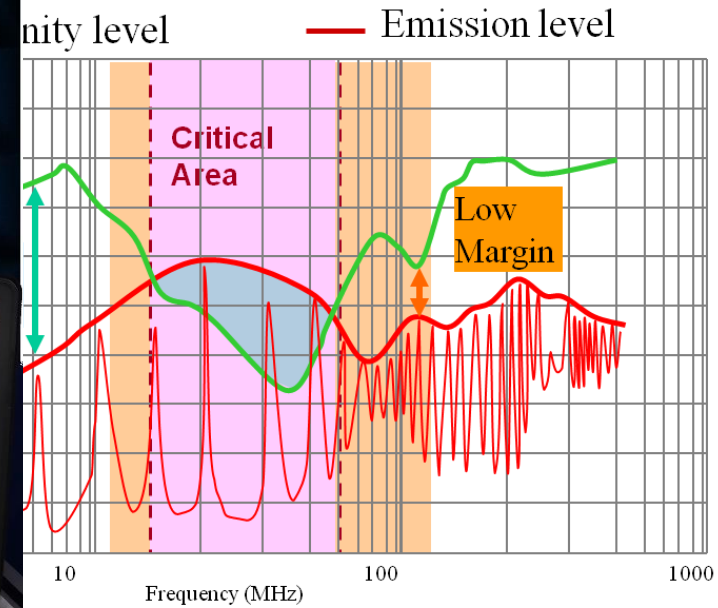
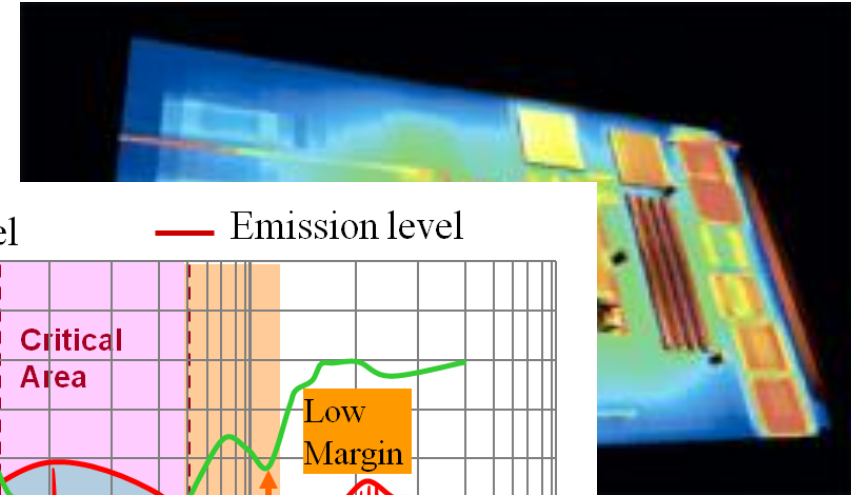
Design assistance



The Goal

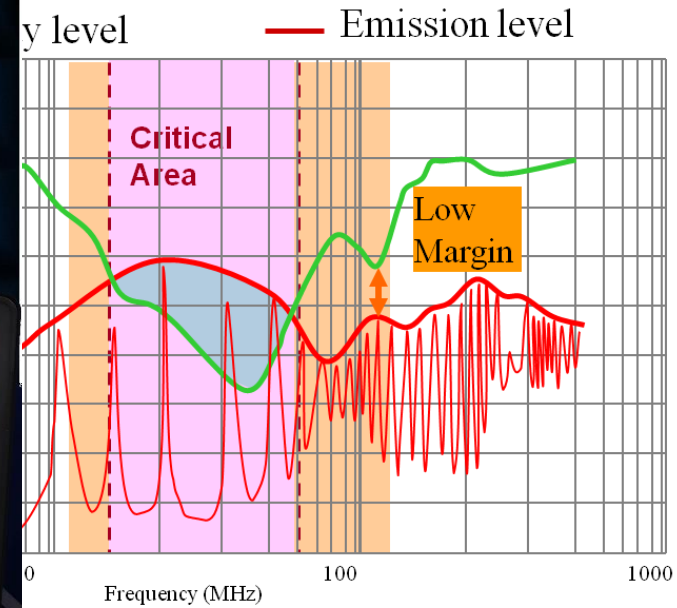
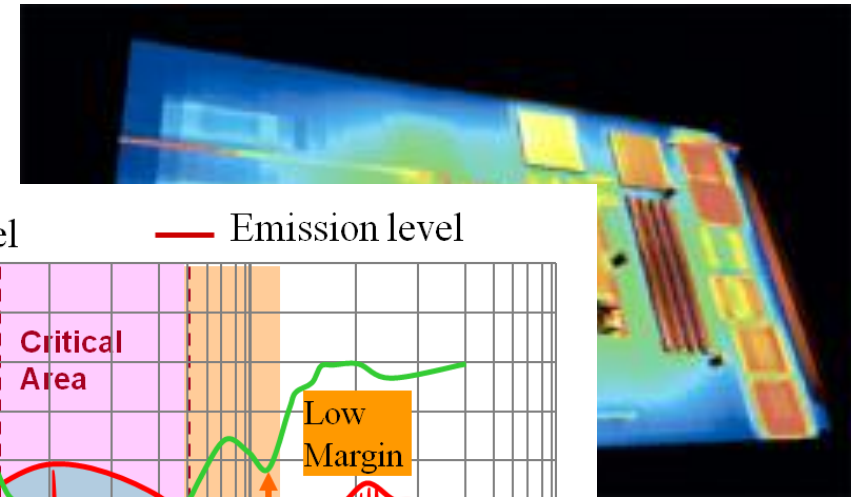
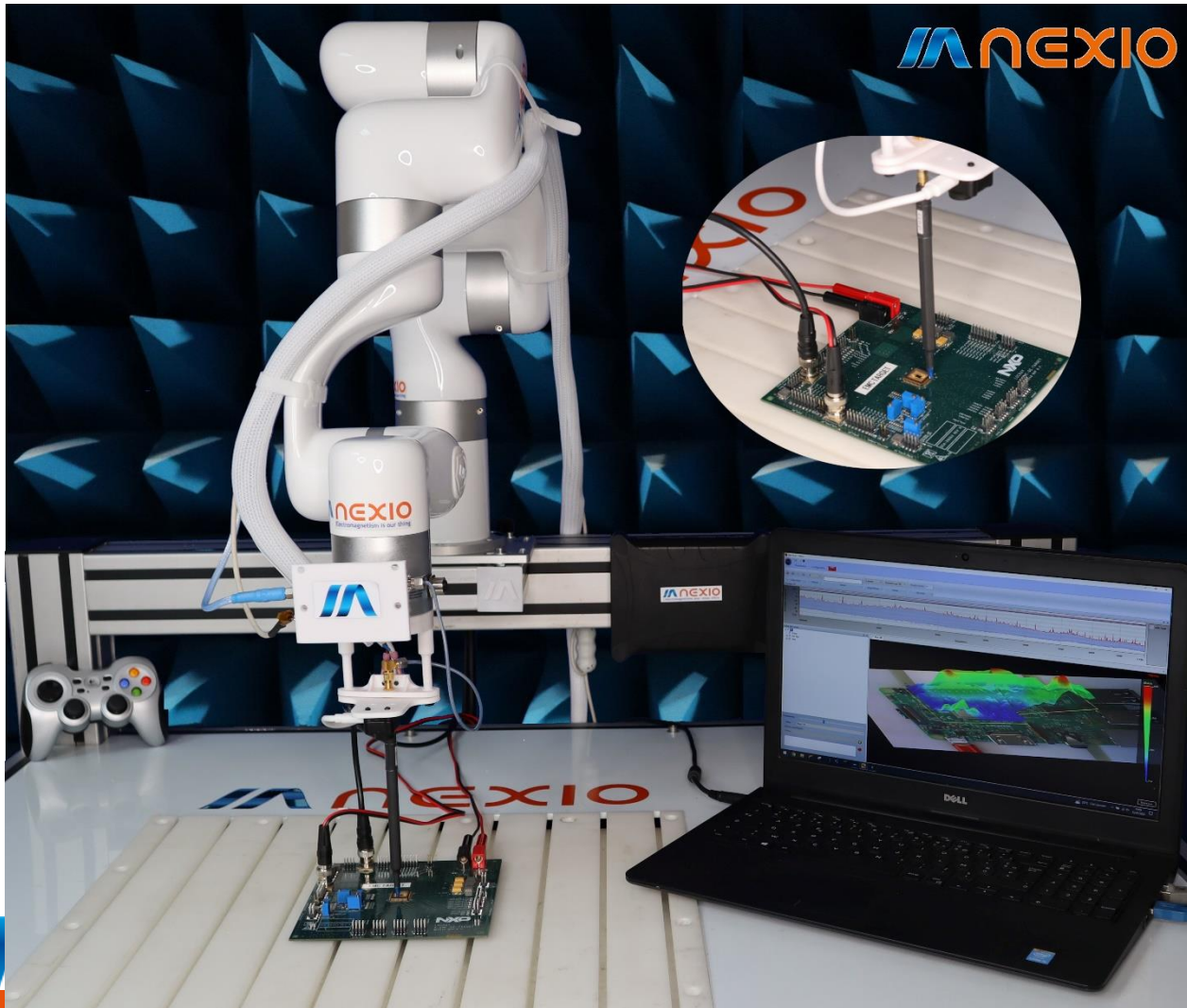


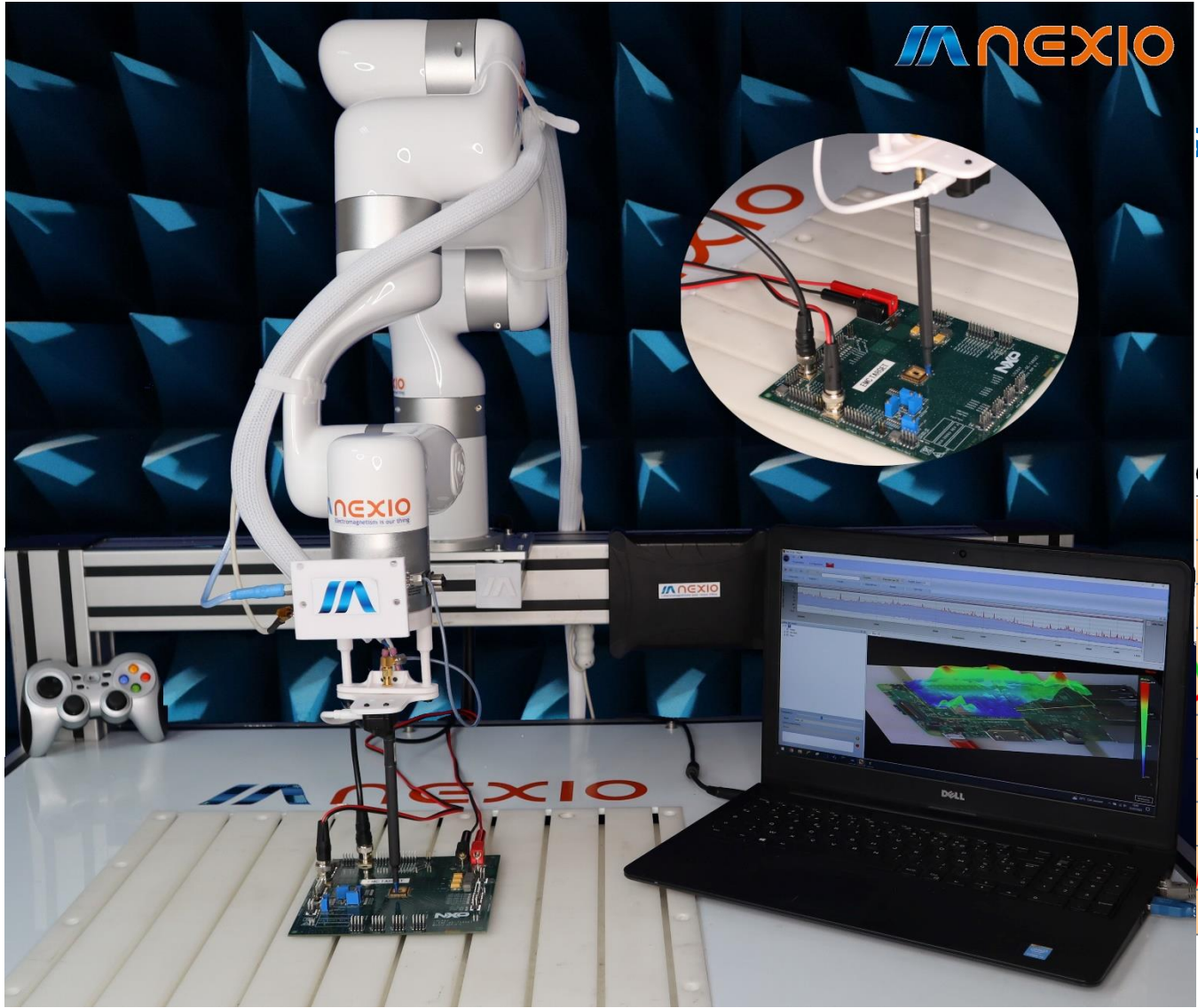
Design assistance



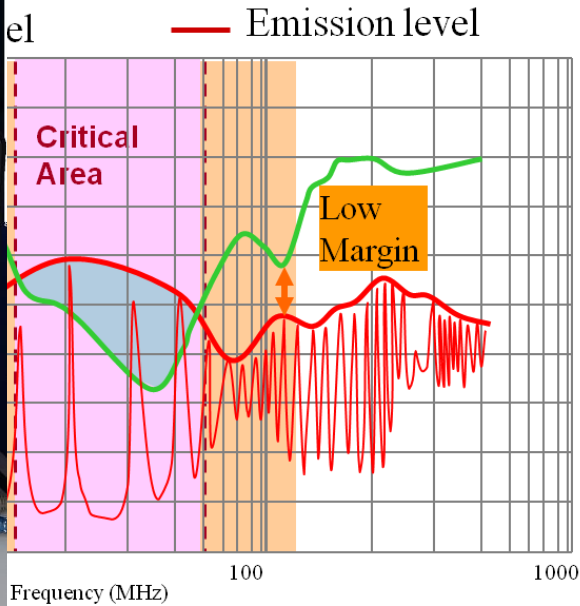
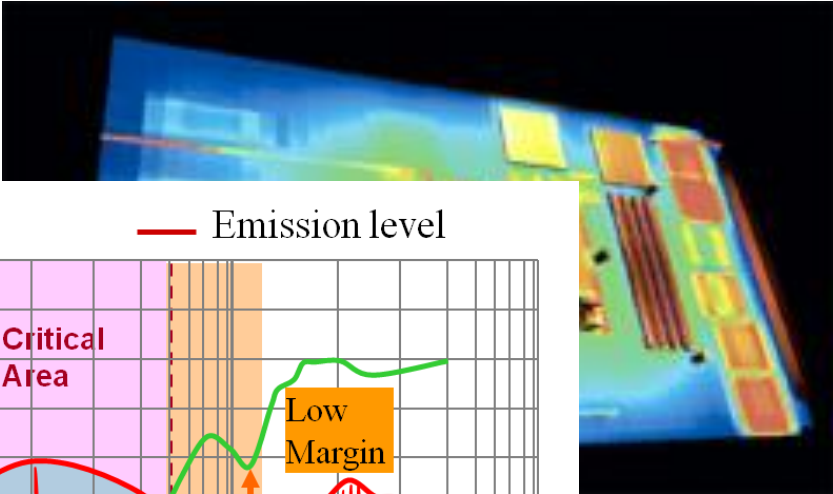
The Goal

Design assistance

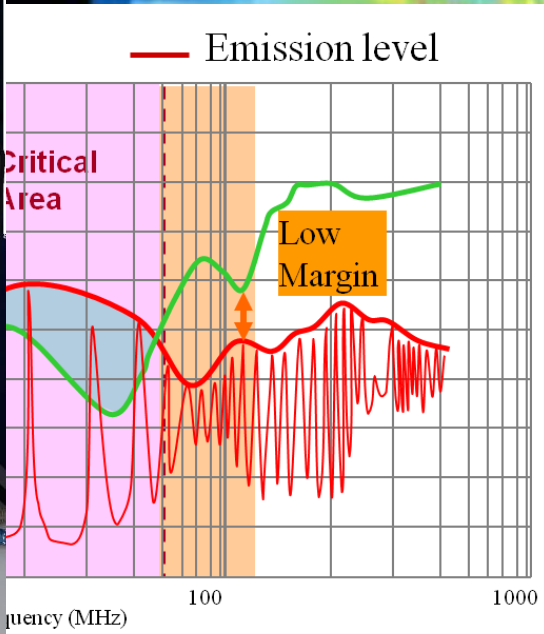
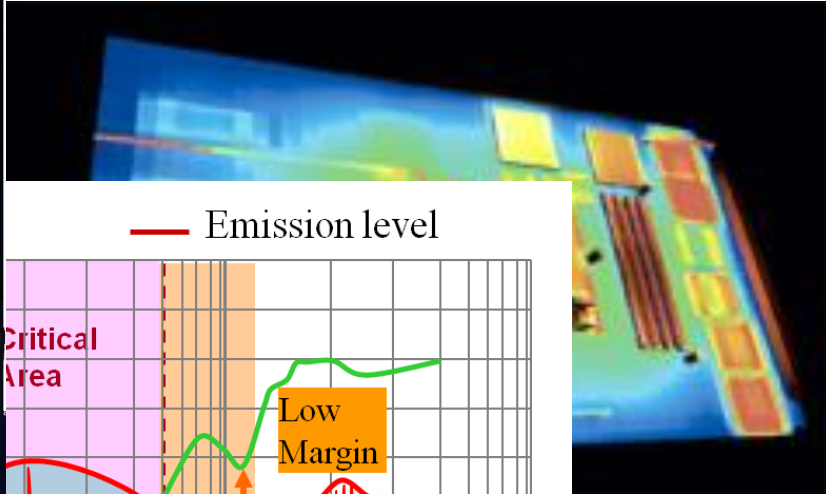
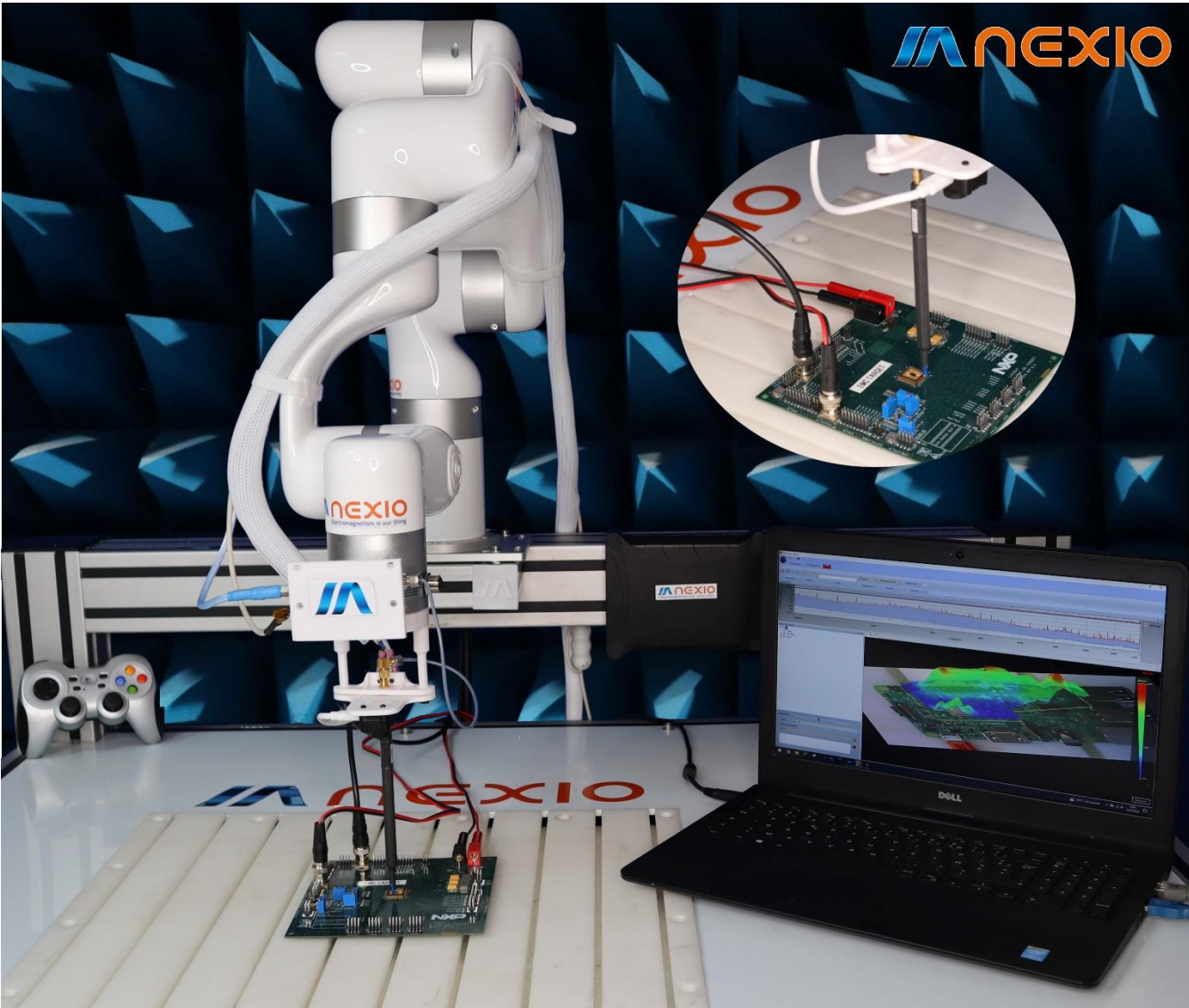


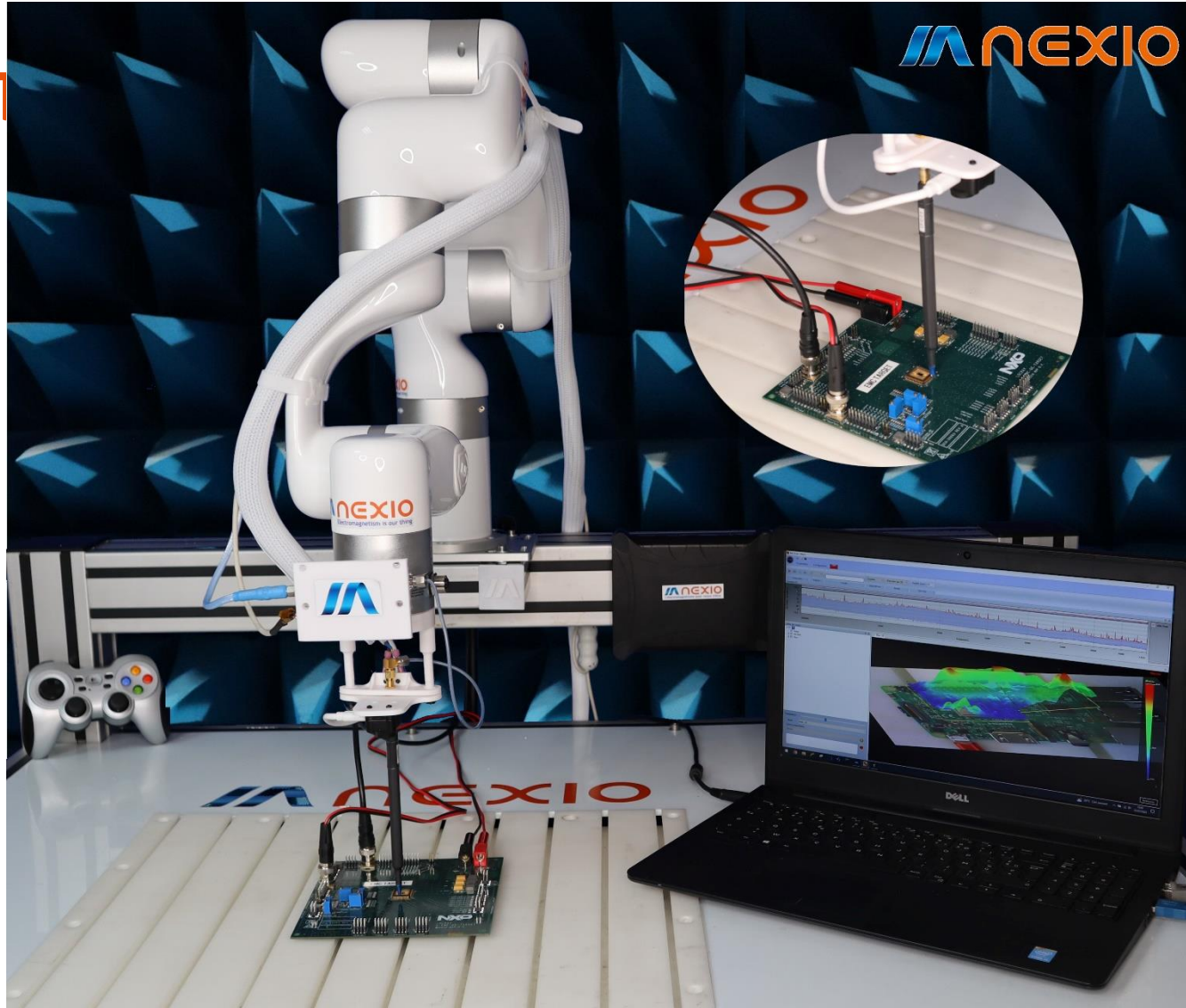


Design assistance

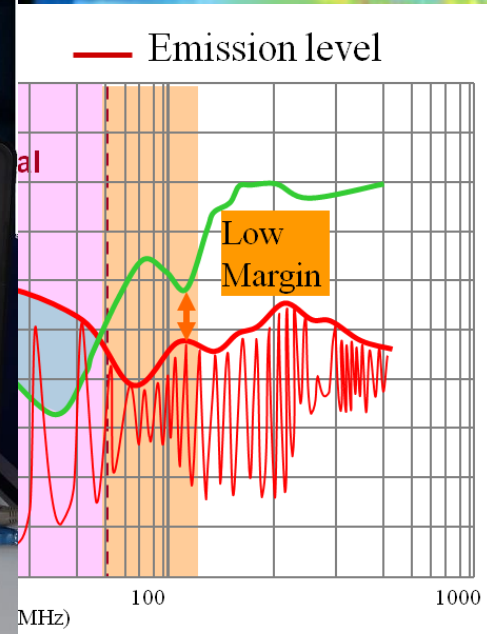
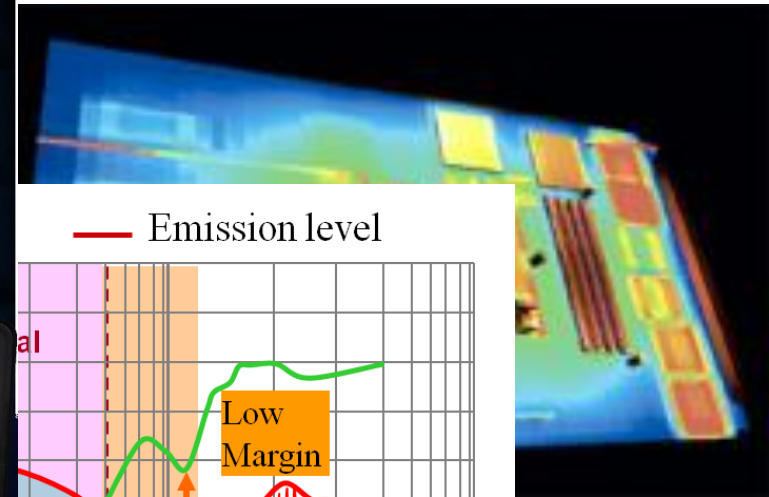


Design assistance

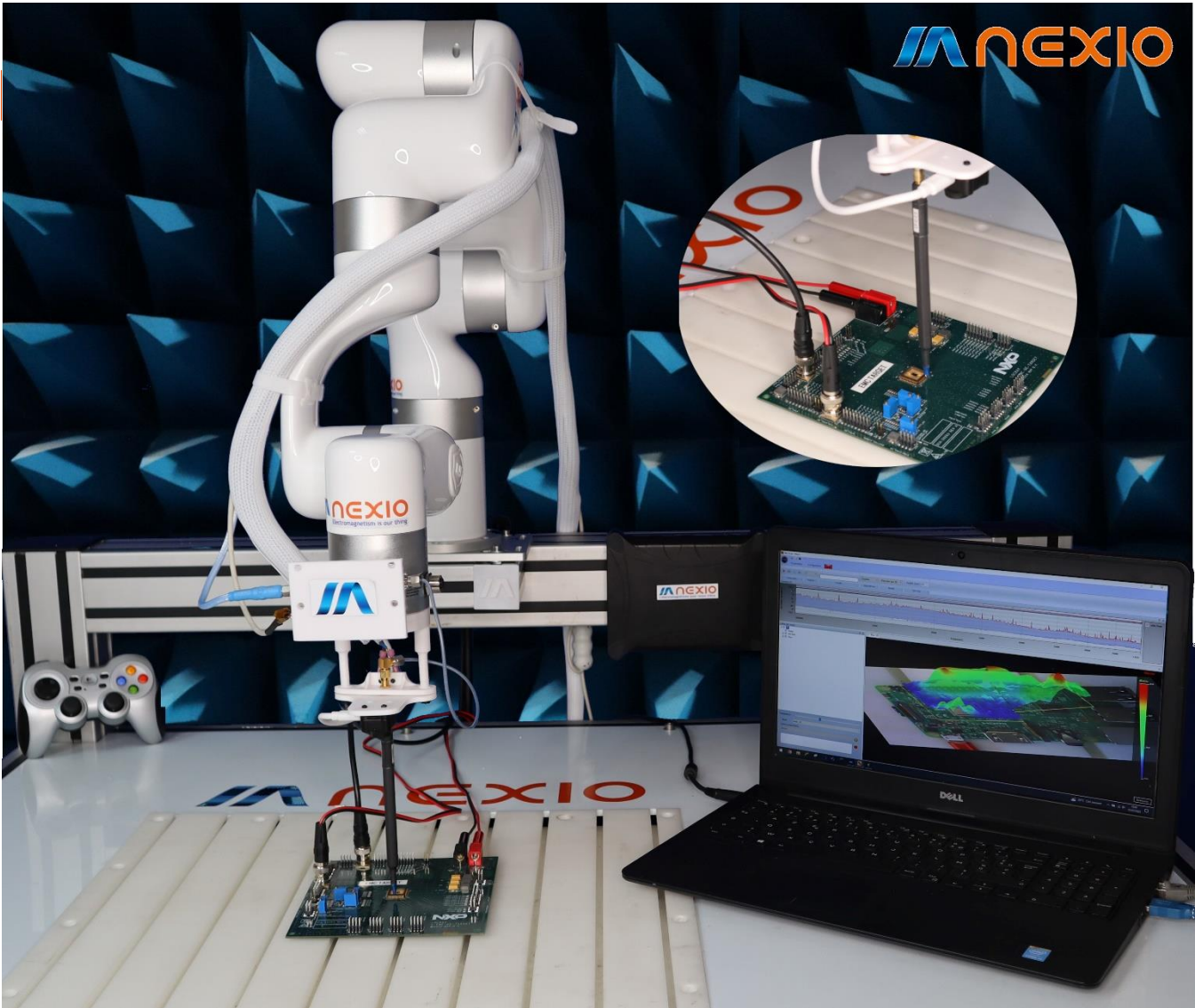




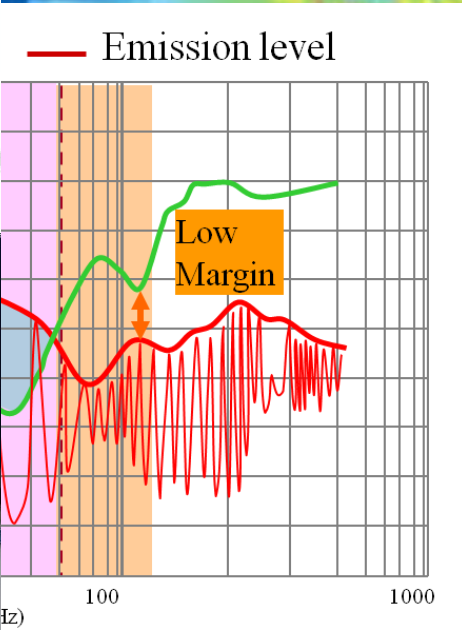
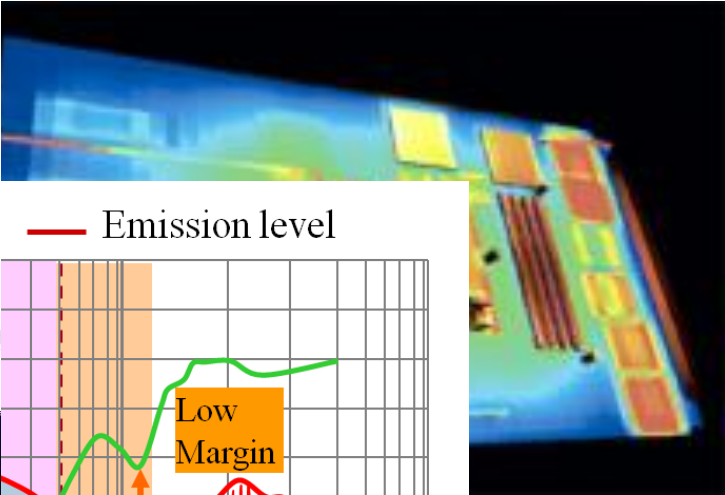
assistance



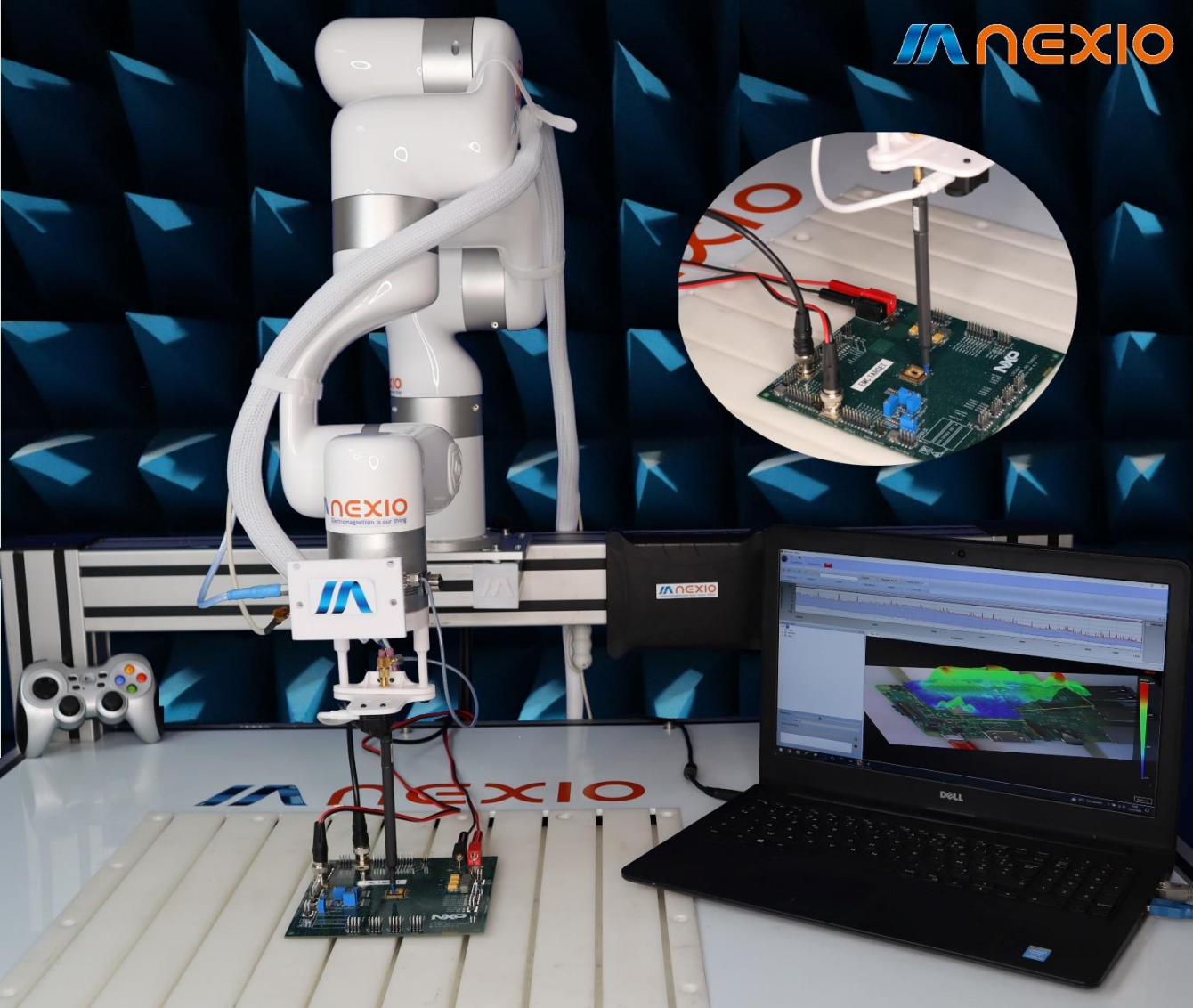
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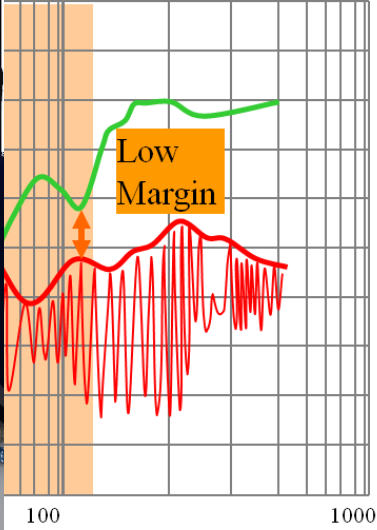
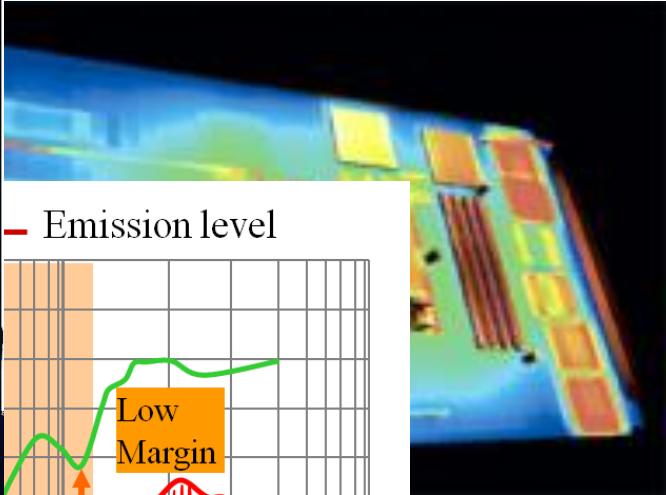
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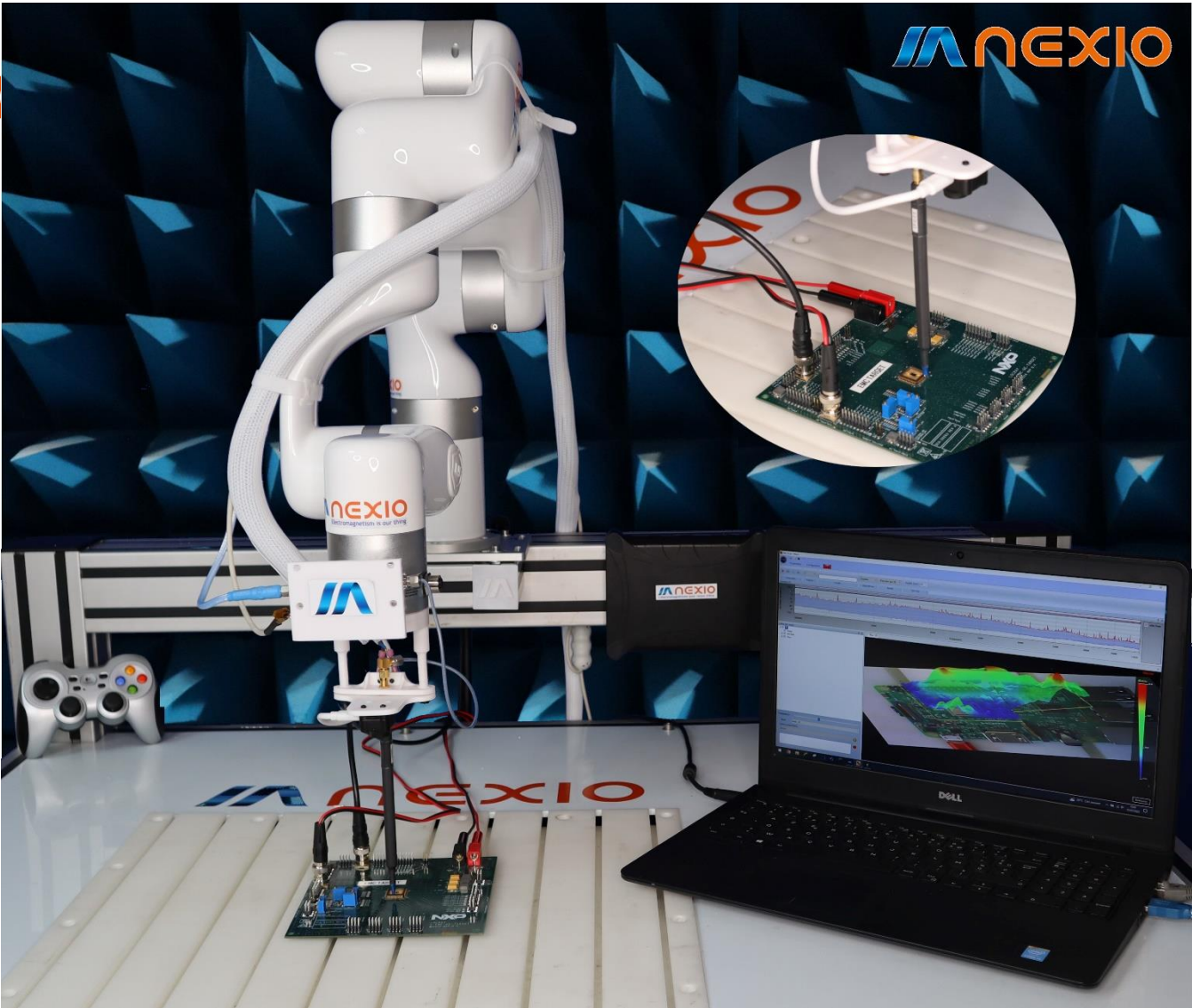
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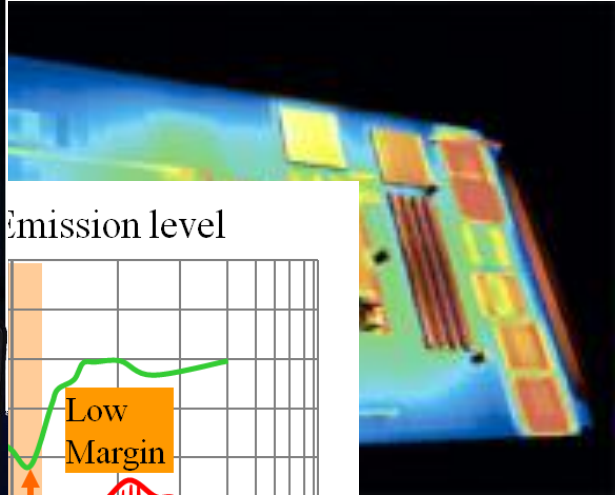
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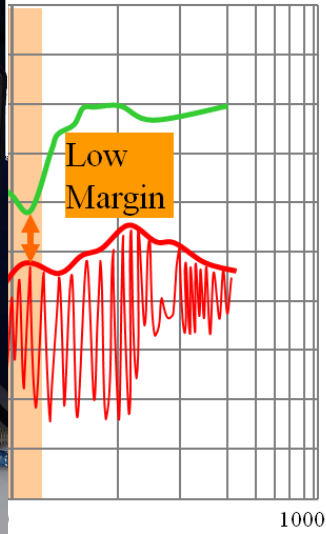
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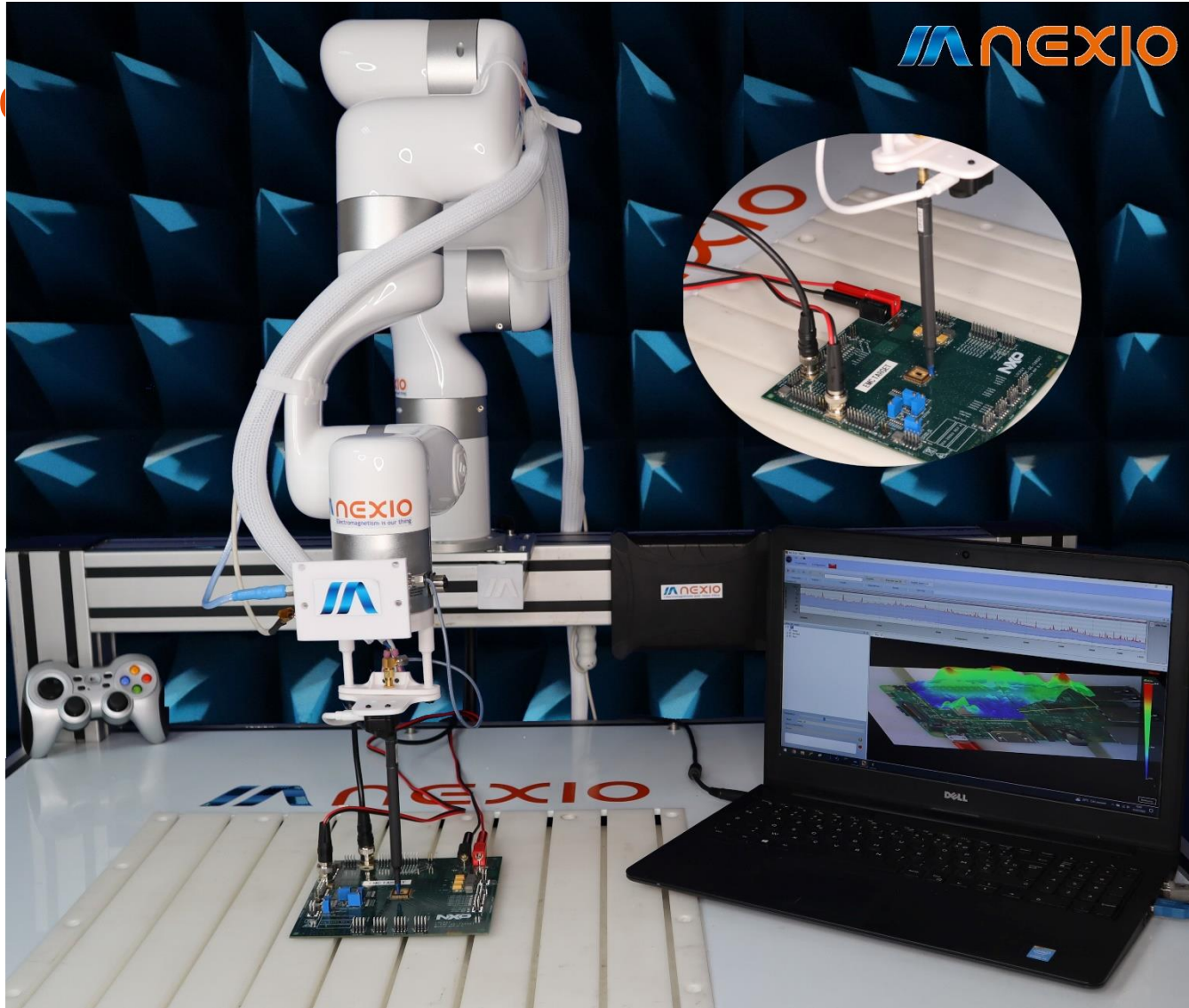
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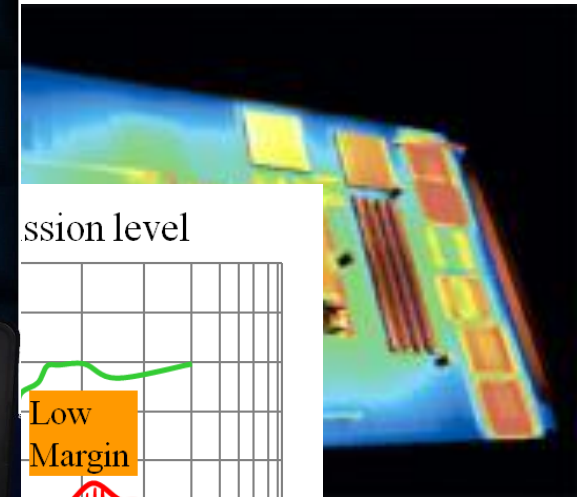
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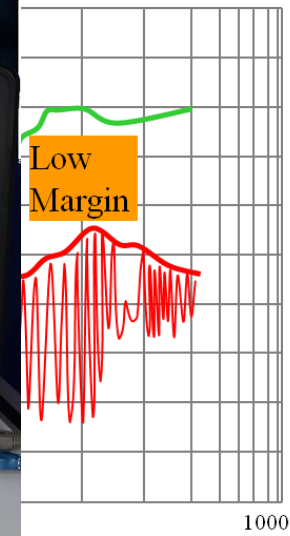
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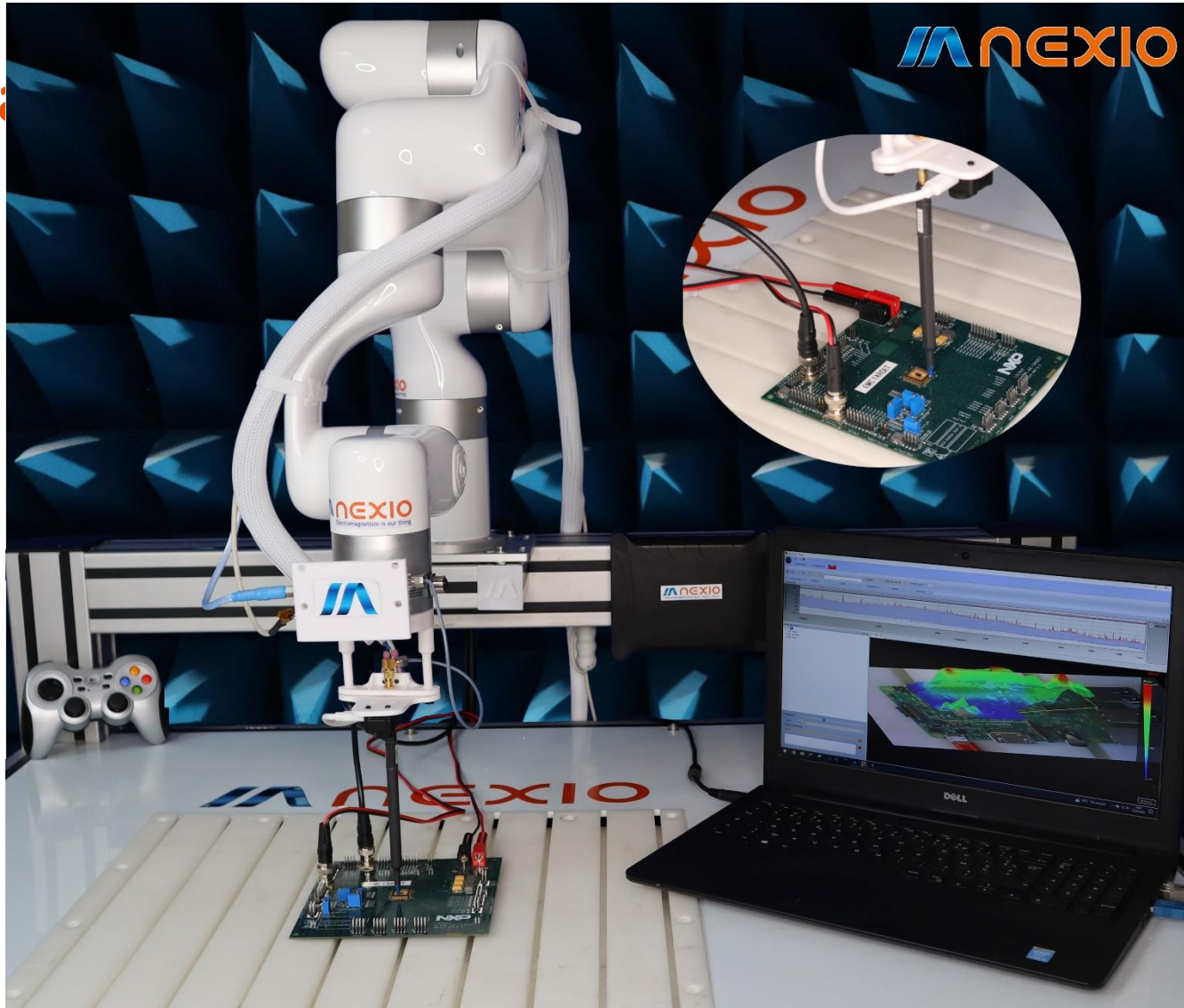
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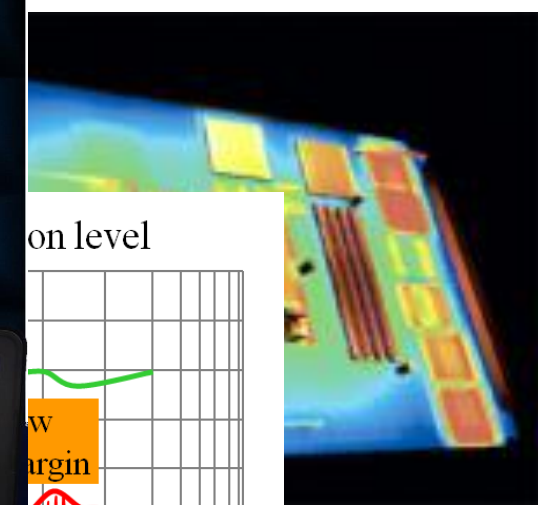
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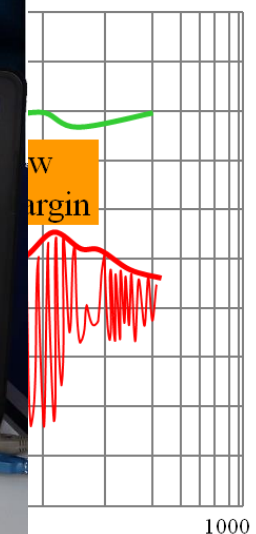
The Goal



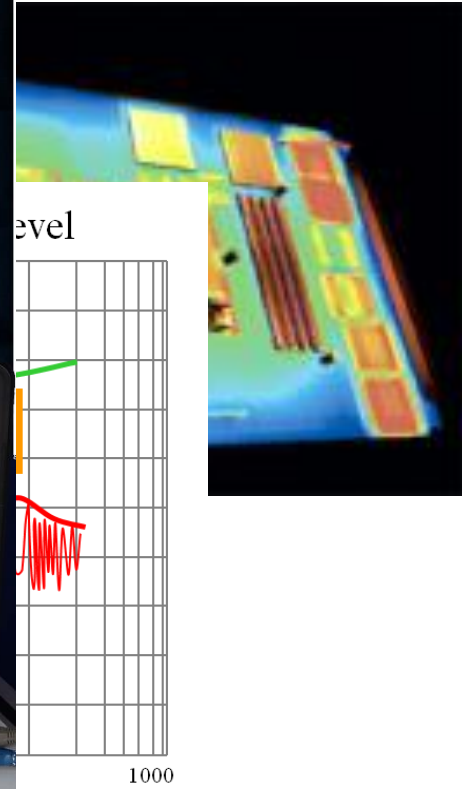
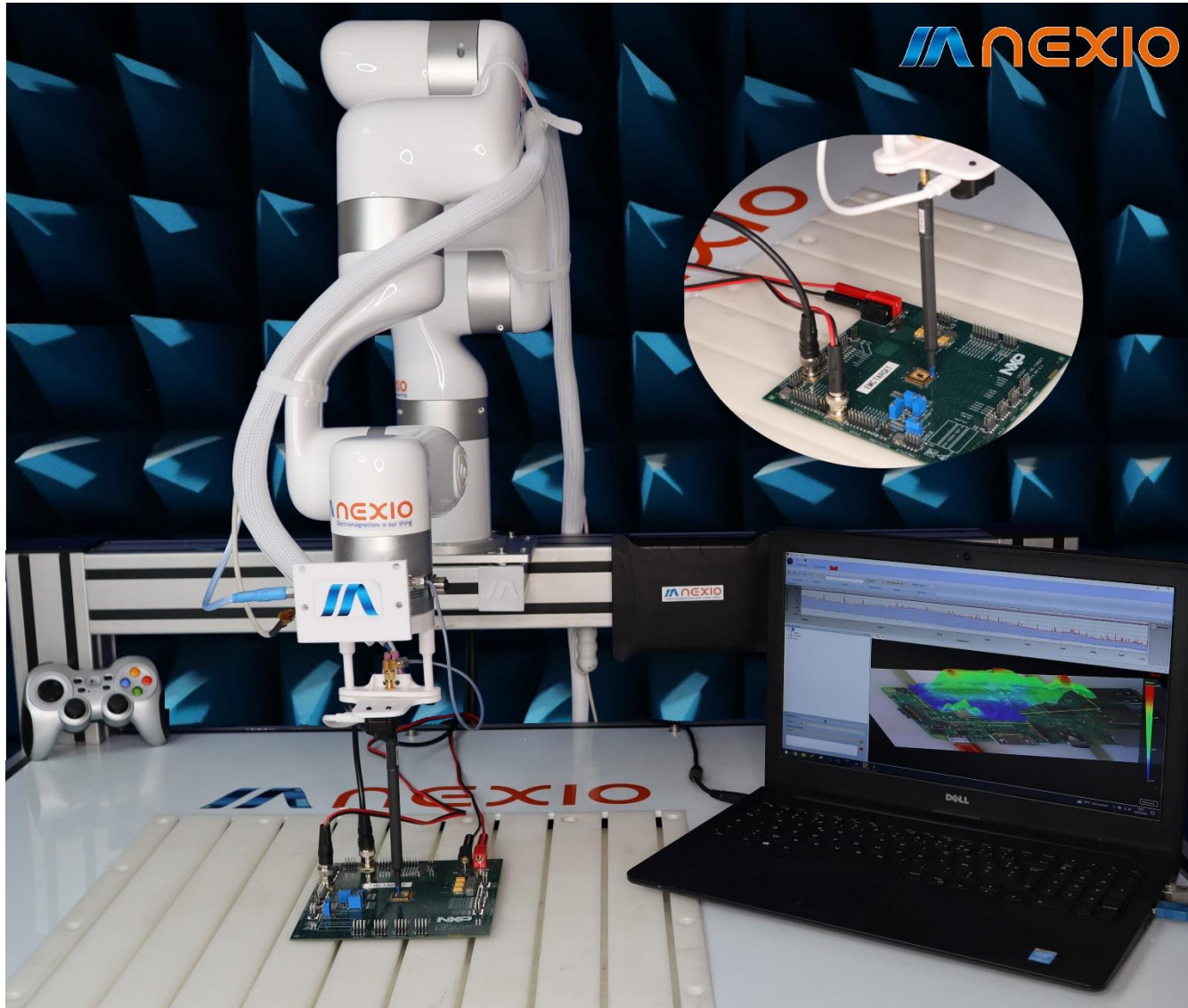
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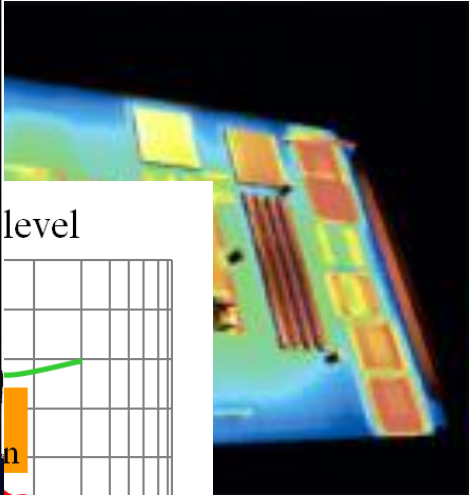
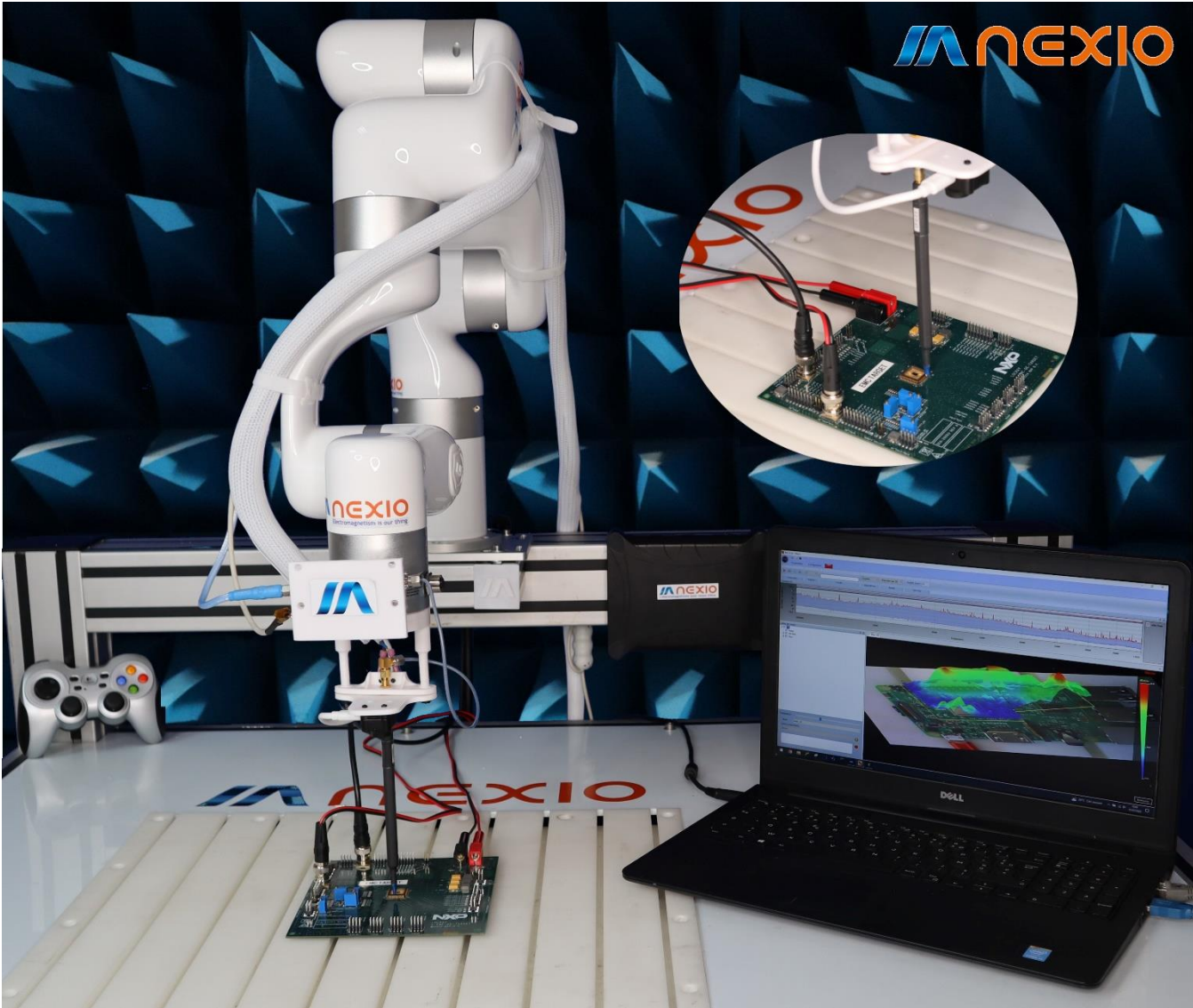


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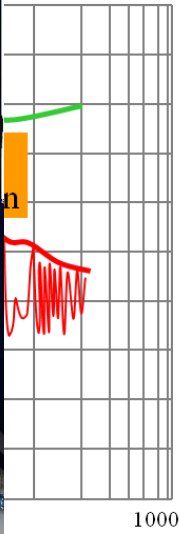


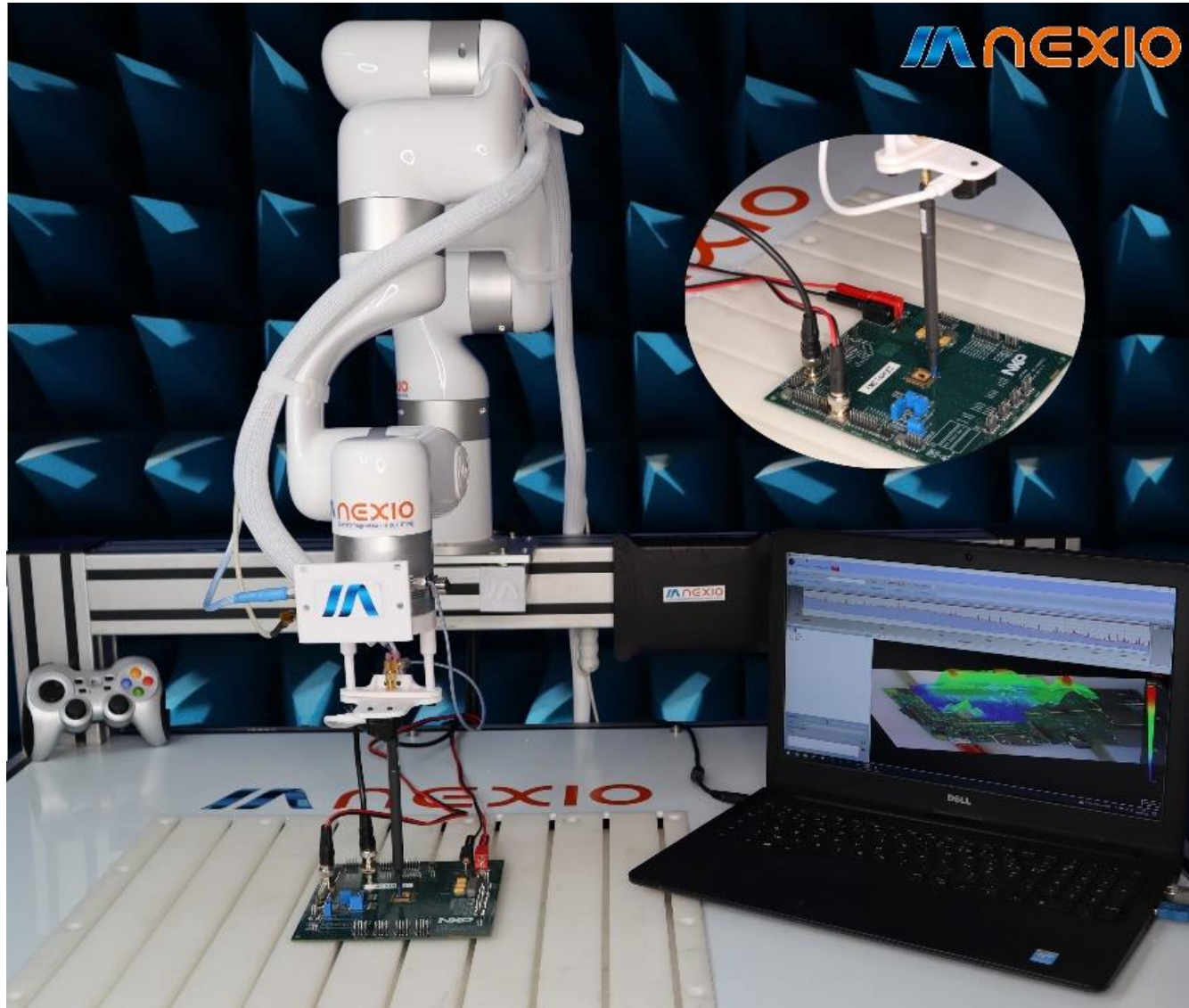
The Goal





level



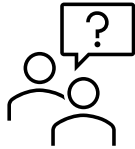


To go further

Contact us for quotation

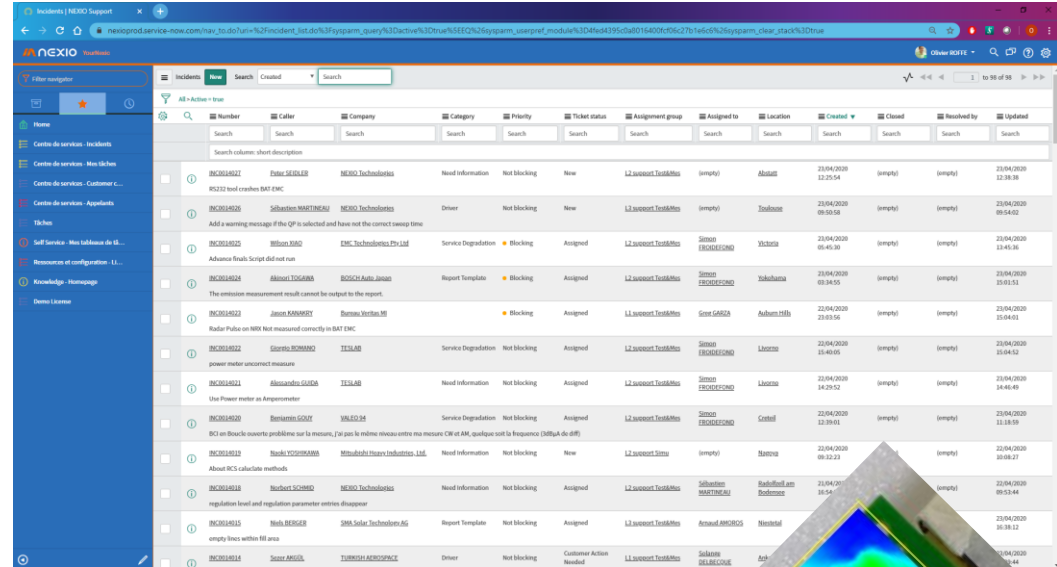


<https://www.nexiogroup.com>



<https://yournexio.com>

sales@nexiogroup.com



Number	Caller	Company	Category	Priority	Ticket status	Assignment group	Assigned to	Location	Created	Closed	Resolved by	Updated
INC014921	Fabrice SEVERIN	NEXIO Technologies	Need Information	Not blocking	New	L2 support Tool&Mts	(empty)	Abatub	23/04/2020 12:25:54	(empty)	(empty)	23/04/2020 12:38:38
INC014926	Sébastien MONTMAYEU	NEXIO Technologies	Driver	Not blocking	New	L2 support Tool&Mts	(empty)	Indreux	23/04/2020 09:00:08	(empty)	(empty)	23/04/2020 09:04:02
INC014922	William BRAD	EMC Technologies Pty Ltd	Service Degradation	Blocking	Assigned	L2 support Tool&Mts	Simon ESCOFFIERO	Victoria	23/04/2020 08:49:30	(empty)	(empty)	23/04/2020 13:45:36
INC014924	Alexandre TOGAHBA	BOSSCH Auto_Zooon	Report Template	Blocking	Assigned	L2 support Tool&Mts	Simon ESCOFFIERO	Yokohama	23/04/2020 09:34:55	(empty)	(empty)	23/04/2020 09:51:51
INC014923	Jason BARRONBY	Berman,Veritas MI	Blocking	Assigned	L1 support Tool&Mts	Gene GAGER	Andover Hills		22/04/2020 23:03:56	(empty)	(empty)	23/04/2020 05:04:01
INC014922	Stavros KEMENIDIS	ITSLAB	Service Degradation	Not blocking	Assigned	L2 support Tool&Mts	Simon ESCOFFIERO	Litorea	23/04/2020 15:40:05	(empty)	(empty)	23/04/2020 15:44:12
INC014921	Alexandre GUYON	ITSLAB	Need Information	Not blocking	Assigned	L2 support Tool&Mts	Simon ESCOFFIERO	Litorea	23/04/2020 14:26:12	(empty)	(empty)	23/04/2020 14:46:49
INC014920	Bernard GUYOT	VINCO 24	Service Degradation	Not blocking	Assigned	L2 support Tool&Mts	Simon ESCOFFIERO	Cordell	23/04/2020 13:39:01	(empty)	(empty)	23/04/2020 13:39:59
INC014919	Stavros KEMENIDIS	Mitsubishi Heavy Industries, Ltd.	Need Information	Not blocking	New	L2 support Litms	(empty)	Basma	22/04/2020 09:52:23	(empty)	(empty)	22/04/2020 09:58:27
INC014918	Richard SCHROEDER	NEXIO Technologies	Need Information	Not blocking	Assigned	L2 support Tool&Mts	Sébastien MONTMAYEU	Buckfield am Bodensee	23/04/2020 10:54:14	(empty)	(empty)	23/04/2020 09:53:44
INC014914	Math BERGER	SMA Solar Technologies AG	Report Template	Not blocking	Assigned	L3 support Tool&Mts	Arsenal BRUNOS	Wiesental	23/04/2020 16:38:12	(empty)	(empty)	23/04/2020 16:38:12
INC014916	Stavros KEMENIDIS	TURKISH AEROSPACE	Driver	Not blocking	Customer Action Needed	L1 support Tool&Mts	Sébastien MONTMAYEU	Ant	23/04/2020 10:44:44	(empty)	(empty)	23/04/2020 10:44:44

Thank you for your participation !

Any questions ?

