

# Installation manual for the BFU5XX family ADS design kit

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Installation manual

## Document information

Info	Content
<b>Keywords</b>	Installation manual BFU5XX ADS design kit
<b>Abstract</b>	This document describes the installation of the NXP BFU5XX wideband family design kit for ADS



**Revision history**

<b>Rev</b>	<b>Date</b>	<b>Description</b>
1	20131204	Initial document
2	20140418	Added BFU580G,BFU590G,BFU580Q and BFU590Q models

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## 1. Introduction

The BFU5xxX transistor family is designed to meet the latest requirements on high frequency applications (up to approximately 1.5 GHz) such as communication, automotive and industrial equipment.

As soon as fast, low noise analogue signal processing is required, combined with medium to high voltage swings the BFU5xxX transistors are the perfect choice. Due to the high gain at low supply current those types can also be applied very well in battery fed equipment.

Compared to previous Philips / NXP transistor generations and competitor products improvements on gain, noise and thermal properties are realized. BFU5xxX transistors will be available in various packages.

To enhance the design cycle speed, accurate models have been extracted, and combined in an ADS design kit. For this, the most accurate bipolar model, MEXTRAM is used, which is supported by the Agilent ADS simulator. Also the parasitic and package has been modeled, to cover up to 6 GHz, over the entire bias range.

A summary of the available models in the design kit is shown in Table. 1

Transistor	Package
BFU520W, BFU530W, BFU550W	SOT323
BFU520A, BFU530A, BFU550A	SOT23
BFU520, BFU530, BFU550	SOT143
BFU520X, BFU530X, BFU550X	SOT143X
BFU520XR, BFU530XR, BFU550XR	SOT143XR
BFU580G, BFU590G	SOT223
BFU580Q, BFU590Q	SOT89

Table 1. Devices includes in the ADS design kit

## 2. Installation procedure

This section describes step-by-step the installation of the design kit.

1. Copy the file in the ADS home directory
2. Close all ADS schematics
3. In the main window of ADS, select Design Kit -> Unzip Design Kit, browse to the location where you have copied the BFU5XX\_family\_ADS\_design\_kit\_v2.zip.
4. After unzipping the design kit, select Design Kit -> Manage Favorite Design Kits, and mark the check box "In Current Workspace" associated with the design kit. After this, all devices will be available in your design environment, named as ads\_nym\_bfu5xx.
5. This will complete the installation.

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