

# TEF7018HN

Scalable advanced background receiver

[Favorite](#)
[Print](#)

[Overview](#)
[Package / Packing](#)
[Quality](#)
[Documentation](#)
[Ordering](#)
[Design support](#)
[Show all](#)

**Direct downloads**

[Short datasheet \(pdf\)](#)  
**No full datasheet available**  
[All documentation \(zip\)](#)

[All documents \(5\)](#)

**Quick ordering**

TEF7018HNV102K

Region: -- select your region --

Distributor: **In Stock**

OR: [Order samples](#)

The TEF7016 and TEF7018 are analog single-chip radio background ICs specifically designed for background reception. Both devices support all major global background receiver standards such as Radio Data System (RDS), Radio Broadcast Data System (RBDS), Traffic Message Channel (TMC), DARC (VICS and RTIC) and optional support of digital radio via a co-processor (HD Radio and DRM).

The devices are following the industry-proven background receiver TEF7006 and TEF7007 with improved performance and feature set optimizing the total system costs. They are completing NXP Semiconductors Car Radio portfolio to provide an efficient, high performing application. The TEF701X are housed in a HVQFN32 package designed for two- and multi-layer PCB applications.

The radio receiver includes the AM/FM front-ends, tuning synthesizer, channel filtering, demodulation, weak signal processing, noise blanking in FM mode, RDS and DARC reception and optional FM multipath improvements.

The TEF7018 supports AM and FM, HD Radio and Digital Radio Mondiale (DRM30 and DRM+). The TEF7016 is an FM-only version and supports optionally the digital radio standards FM-HD Radio and DRM+. For both TEF7016 and TEF7018, these digital radio standards are supported when used with NXP Semiconductors' digital radio coprocessors such as SAF356X and SAF360X.

Furthermore the TEF7018 provides the complete feature set including AM IF noise blanking, AM SoftMute on Modulation and the TEF701X provides digital audio output (mono) via I<sup>2</sup>S.

This site uses cookies. Why? [Click here to find out more.](#) [Close](#)

- Alignment free digital receiver including tuner and software-defined radio processing
- Read information with device and tuning status, reception quality and RDS data
- FM background receiver with a tuning range of 65 MHz to 108 MHz covering Eastern Europe (OIRT), Japan, Europe and US bands
- AM background receiver (TEF7018) receiver covering LW, MW and full SW
- Fully integrated tuning system with low phase noise and fast tuning
- Variable IF bandwidth filtering (FM PACS) and demodulation
- Baseband I<sup>2</sup>S output supporting digital radio standards
- FM-HD Radio and DRM+ (TEF7016) with external digital radio coprocessor
- HD Radio and DRM (TEF7018) with external digital radio coprocessor
- AM and FM noise blanking, Signal quality detection and weak signal processing
- Advanced RDS and RBDS demodulation and decoding
- Excellent RDS sensitivity performance
- MPX output supporting an external DARC demodulator and RTIC
- Two mono audio DACs: one analog output for FM MPX and mono analog audio output
- Single 3.3 V supply voltage
- Fast mode I<sup>2</sup>C-bus (400 kHz)
- Configurable GPIO pins for RDS, Quality Status, RDS data available interrupt and generic I<sup>2</sup>C-bus controlled I/O
- Qualified in accordance with AEC-Q100
- I<sup>2</sup>S audio output

### Applications

The TEF701X is a background receiver that can be used for Radio Data System (RDS), Radio Broadcast Data System (RBDS), Traffic Message Channel (TMC) and background reception for automotive applications. DARC reception is also supported via the MPX output to VICS/RTIC decoders.


When used together with the digital radio coprocessors SAF356X and SAF360X, digital radio standards background reception can be supported.

Additionally, due to a common technology platform, the TEF701X can be combined with the TEF665X, TEF668X, SAF775X and SAF360X for optimal system application through common crystal oscillator sharing.


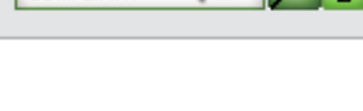
► **Series** TEF701X  
Scalable advanced background receiver

All information on this product information page is subject to the subsequent disclaimers:  
[General product disclaimer](#)  
[Quality and reliability disclaimer](#)

### Package

Type number	Package	Outline version	Reflow-Wave soldering	Packing	Product status	Marking	Orderable part number, (Ordering code (12NC))
TEF7018HNV102	 HVQFN32 (SOT617-3)	<a href="#">sot617-3_po</a>	<a href="#">sot617-3_fr</a>	Tray, Bakeable, Multiple in Drypack	<b>Active</b>	Standard Marking	TEF7018HNV102K (9353 026 52557)
				<a href="#">Reel 13" Q1/T1 in Drypack</a>	<b>Active</b>	Standard Marking	TEF7018HNV102Y (9353 026 52518)

### Quality, reliability & chemical content

Type number	Orderable part number	Chemical content	RoHS / RHF	Leadfree conversion date	MSL	MSL LF
TEF7018HNV102	TEF7018HNV102K	TEF7018HNV102		Always Pb-free	3	3
TEF7018HNV102	TEF7018HNV102Y	TEF7018HNV102		Always Pb-free	3	3

► [Quality and reliability disclaimer](#)

### Documentation for this product

[Download all documentation \(zip\)](#)

File name	Title	Type	Format	Date
<a href="#">TEF701X_SDS</a>	Scalable advanced background receiver	★	Short data sheet pdf	2013-07-30
<a href="#">75017470</a>	NXP DSP-based single-chip background tuners TEF701x	★	Leaflet pdf	2013-09-17
<a href="#">SOT617-3_518</a>	HVQFN32; Reel pack; SMD, 13" Q1/T1 Standard product orientation Orderable part number ending ,518 or Y Ordering code (12NC) ending 518	★	Packing pdf	2015-04-01
<a href="#">sot617-3_fr</a>	Footprint for reflow soldering SOT617-3	★	Reflow soldering pdf	2009-10-08
<a href="#">sot617-3_po</a>	plastic thermal enhanced very thin quad flat package; no leads; 32 terminals; body 5 x 5 x 0.85 mm	★	Outline drawing pdf	2002-10-21

### Ordering & availability

Type number	Ordering code (12NC)	Orderable part number	Region	Distributor	In stock	Order quantity	Inventory date	Buy online	Samples
TEF7018HNV102	9353 026 52557	TEF7018HNV102K							<a href="#">Order samples</a>
TEF7018HNV102	9353 026 52518	TEF7018HNV102Y							<a href="#">Order samples</a>

**Sample**  
 Sample orders normally take 2-4 days for delivery.  
 If you do not have a direct account with NXP our network of global and regional distributors is available and equipped to support you with NXP samples. As a NXP customer you also have the option to order samples via our sales organisation.

**Technical support**

Do you want to ask technical questions to an NXP expert? Please select one of the following options:

- Visit our Support Community to ask a question
- Find answers in our technical support site.

Find answers to your design questions on this page. If available you can find information in our NXP Support Community or you can find NXP models, Demo boards and Design tools.

### Frequently asked questions and Community discussions

The Frequently asked questions are answers provided by NXP technical experts. The discussions are between users of the Community, these can be NXP technical experts, but also other users.

04-05-2015	TEF7006HNV1,557	<a href="#">Discussion</a>
04-05-2015	TEF7006HNV1,557	<a href="#">Discussion</a>
21-03-2015	TEF7000	<a href="#">Discussion</a>
21-03-2015	Where is the datasheet for the TEF7000	<a href="#">Discussion</a>
21-03-2015	TEF7000	<a href="#">Discussion</a>
21-03-2015	Where is the datasheet for the TEF7000	<a href="#">Discussion</a>

[Go to the NXP Support Community](#)

**Disclaimer** All Community items are matched using search logic, so not all results may be equally relevant. Any opinions, advice, statements or other information in the discussions posted or transmitted by any third party are the responsibility of the author of that message and not of NXP.

Recent searches | Visited Products | Favorites

Keywords	Date	Results
No results		

Save your activities in this browser [Erase all](#)  
 Login or Register to save your activities online [Disclaimer](#)

Follow us

[Newsletter](#)
[Twitter](#)
[RSS](#)
[LinkedIn](#)