

FM for Real Life

**child
friendly
hearing
care**



Keeping it
simple

Hearing
more speech

Inspiring
confidence

Built
to last

No child should
be left behind



Designed for real life

The new Amigo T30 and T31 FM educational transmitters are prime examples of technological evolution designed to meet the demands of real life situations. That's what our "FM made friendly" promise is all about.

Oticon's commitment to the pediatric cause is evident in Amigo, an ever-evolving family of FM solutions. In everyday situations - particularly at school - Amigo delivers what children need the most: maximum speech intelligibility for language development, learning and socializing.

We listen and respond

For over a century Oticon has been creating specialized solutions for adults and children of all ages. When professionals and users describe the challenges they face, we listen. And whenever technological developments offer opportunities for improvement, we respond.

Amigo keeps on getting better

The Amigo T30/T31 transmitter is a perfect example of evolution designed to meet real life demands. Teachers and audiologists seeking simplicity and reliability will find these qualities in Amigo. And students seeking clear access to speech, comfort and a way to fit in will experience all this and more.

Keeping it simple

With the Amigo T30/T31, the audiologist has full programming and fitting capabilities in the same unit and the teachers can get classes underway at the mere touch of a button.

More bandwidth for more speech

While some FM systems use vital bandwidth for data transmission, Amigo uses every bit of bandwidth on transmitting key high-frequency speech cues.

Inspiring confidence

With built-in LEDs in both receiver and transmitter, teachers can be certain that Amigo is working properly.

Built for real life

Since there's no time for down time, Amigo is built to withstand the daily wear-and-tear of life in the classroom.




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Program transmitters directly
The Amigo T30/T31 programming menus offer easy access to features such as Team Teaching; individual FM channels and advanced digital sound processing.

Fit receivers on the spot
Amigo receivers can be fit either live-on-the-ear at school or at your clinic for optimum convenience.



Saving the audiologist valuable time

By taking the tedious work out of programming and fitting, Amigo makes the school day easier and more productive.

Rather than making audiologists take extra time gathering PCs, cables and other required programming devices, the Amigo T30/T31 offers full programming and fitting capabilities in the palm of your hand. Pre-programmed channels and a built-in Channel Wizard take the work out of

channel management by creating a prioritized local channel list. A simple menu leads you through the individual steps, and features such as Team Teaching can easily be enabled or disabled. A flexible programming range of 1-20 inches ensures robust, easy fitting of receivers.

Easy upgrades to the latest software
Amigo T30/T31 transmitters are equipped with a USB port for easy upgrading of software. Access to new features will keep your Amigo transmitters efficient and cost-effective.

Freedom to choose

Audiologists don't want to be limited to which FM system to use. That's why Amigo offers complete freedom to choose. Amigo solutions work with virtually all BTEs, CI processors and other brands of receivers and transmitters, without compromising signal durability or sound quality.



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Teachers want less hassle with FM

As part of their daily routine teachers have to operate FM systems. As part of Oticon's commitment to provide user-friendly solutions, Amigo makes this process simple.

Teachers want to spend their time on teaching - not on trying to decipher complex FM systems! With the Amigo T30/T31 all they have to do is press a button. There are no disruptions to daily routines - only discreet, dependable FM support.

The display screen provides instant validation of actions taken, to avoid confusion and accidental adjustments.

Teaching the way they like

The Amigo T30/T31 comes with a high quality omni-directional lapel microphone. To fit the teacher's style or individual situation, directional or boom microphones are also available - all with a built-in external antenna in the microphone cord.

Wearing it the way they like

For maximum comfort and flexibility the transmitter can be worn on either a belt or in a pocket.

3 simple actions teachers can do at the touch of a button:

- Synchronize the transmitter and receiver
- Activate Team Teaching
- Mute the microphone



Easy set-up for the teacher.



Waist-worn with belt clip.



Omni-directional microphone.



Boom microphone.

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More bandwidth for more speech

Amigo uses every bit of its broader bandwidth to provide clear, consistent access to vital speech cues. No other FM system can match that!

At school, children spend their days in constantly alternating listening situations (Crukley & Scollie, 2010). A hearing loss can make navigating through the day extremely tiring. As the day progresses it becomes increasingly difficult to fill in missing information or instructions – affecting the child’s ability to learn. By providing clearer access to vital speech, Amigo helps children stay on track.

Capturing high frequency phonemes
Today’s advanced hearing solutions

employ extended bandwidth to capture key high-frequency speech cues – a benefit that FM systems should take advantage of.

Research has shown that children with hearing loss can benefit from additional high frequency information available with broader bandwidth (Kortekaas & Stelmachowicz, 2000).

With a bandwidth broader than any other FM system (8.5 kHz), Amigo T30/T31 transmitters can make the soft

consonants stand out more clearly. By capturing more high-frequency information Amigo delivers more natural sounding speech – a quality that makes listening far less fatiguing.

Rather than diverting valuable bandwidth on communicating with the receiver, as in some FM systems, the Amigo T30/T31 uses it to improve speech intelligibility. Maximum speech intelligibility makes language development, learning and socializing easier for the child (Flexer, 1995).

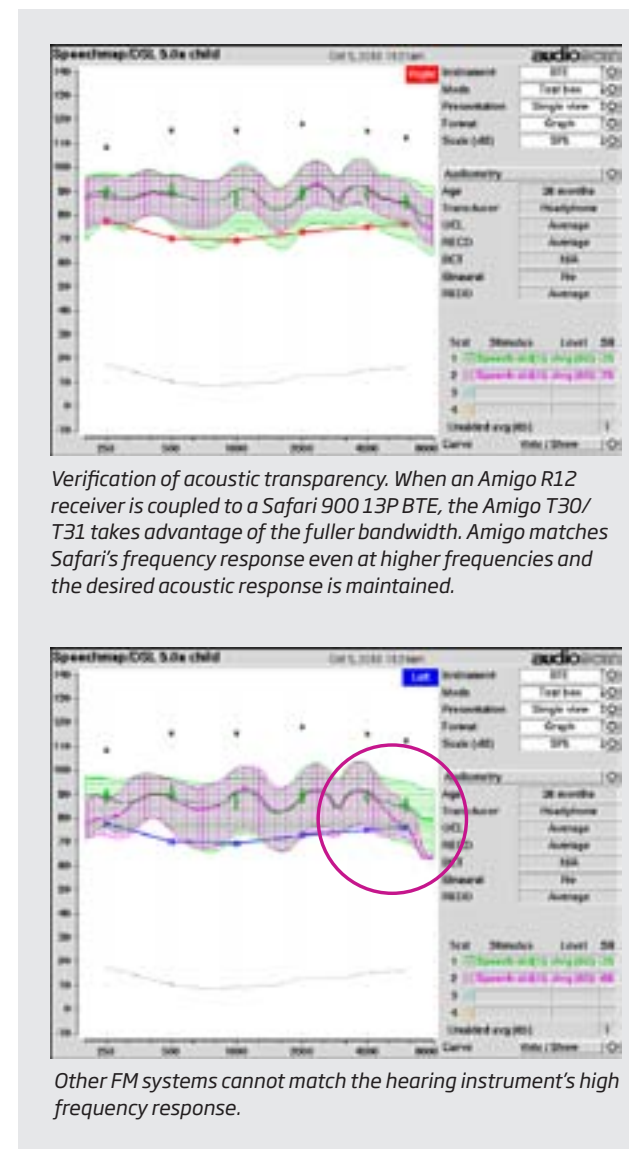
Amigo’s 8.5 kHz bandwidth compliments extended high-frequency bandwidth hearing instruments.

It doesn’t get clearer than Amigo

With an FM system designed to handle the broader bandwidth offered by today’s advanced hearing instruments, children gain more access to the sounds they need to hear (Lindley, 2009).

References

Crukley, J. and Scollie, S. (2010): A school-age listening landscape: Implications for hearing aids. IHCON conference, Lake Tahoe, California, August 2010 (poster).
Flexer, C. (1995): Classroom management of children with minimal hearing loss. *The Hearing Journal*, 48 (10), 53-58.
Kortekaas R. and Stelmachowicz P. (2000): Bandwidth effects on children’s perception of the inflectional morpheme /s/: acoustical measurements, auditory detection, and clarity rating. *Journal of Speech, Language and Hearing Research*, 43: 645-660.
Lindley, G. (2009): Children seen to gain extra benefit from greater bandwidth, binaural compression. *The Hearing Journal*. 62 (10), 28-33.



Verification of acoustic transparency. When an Amigo R12 receiver is coupled to a Safari 900 13P BTE, the Amigo T30/T31 takes advantage of the fuller bandwidth. Amigo matches Safari’s frequency response even at higher frequencies and the desired acoustic response is maintained.

Other FM systems cannot match the hearing instrument’s high frequency response.

As the graphs above indicate, Amigo offers a closer match to the frequency response of broader bandwidth instruments, and consequently broader acoustic transparency than other ear level FM systems on the market. So professionals needn’t be in any doubt as to which FM system provides the most auditory information.

Verification you can trust

- Amigo makes it easy to comply with the latest Hearing Assistive Technology verification guidelines.
- Amigo doesn’t alter the gain in the receiver; so audiologists can trust the signal to remain stable.

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Teachers want to be heard

Teachers on the move - and teachers teaming up - can trust Amigo to transmit every word.



In today's schools, teaching is often dynamic and interactive. Teachers move around a lot - as do students. And just as classmates often work in groups, teachers often run classes in pairs.

In Team Teaching situations, teachers need to know they can be heard - even when they're talking simultaneously. While some FM systems cut one teacher off when the other starts talking, Amigo keeps both voices audible, securing a natural conversation flow.

How Amigo keeps Team Teaching natural

The Team Teaching transmitter - the T31 - supports natural interaction by sending the voice of both teachers directly to the child's FM receivers.

With no artificial cut-offs, teachers won't have to stop and wait to make way for each other's words; they can relax and communicate freely.

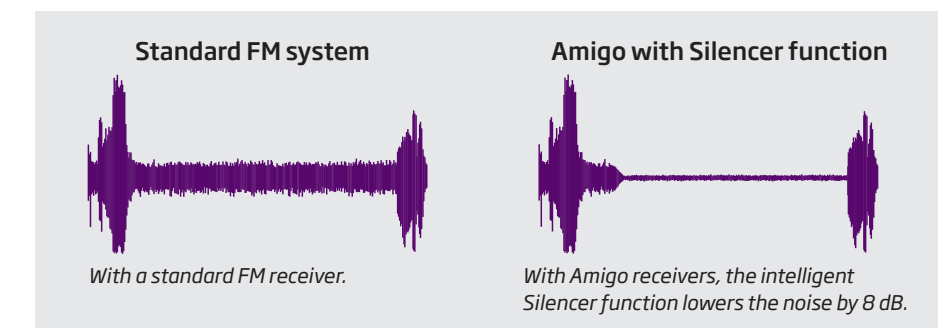
And since the students with hearing loss will experience the teacher's dialog in much the same way as their normal-hearing peers, they will also be able to respond naturally and participate actively.

Kids want to keep up

Children invest enormous effort in trying to follow and interpret what they hear. Thus the more protection we can offer from intermittent noise, the more energy they will have for keeping up.

As well as attenuating ongoing background noise to preserve the integrity of the speech signal, Amigo takes every opportunity to reduce noise during quieter periods.

Whenever the teacher stops talking the Silencer function in the Amigo receivers lowers the receiver noise by 8 dB, so the child doesn't get unnecessarily tired or distracted. During these 'breaks' the child will find it easier to communicate with their classmates. Naturally, the moment the teacher starts talking again, the Silencer immediately releases.



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Taking the guesswork out of FM

With some FM systems, teachers have to guess whether their students are getting the signal. With Amigo they just know.

During lessons teachers prefer not to have to interrupt students to check whether the FM system is working. It slows things down and draws unwanted attention to the child with hearing instruments. Also, small children cannot be relied on to provide accurate feedback.

Instant confirmation for total confidence

The LED status indicators on Amigo T30/T31 transmitters and Amigo

receivers take the guesswork out of FM systems. The transmitter LED indicates whether the unit is turned on, whether it needs recharging, or whether it is in mute mode.

Teachers can also feel confident that the signal will remain stable: extremely robust transmission keeps the risk of drop-outs to an absolute minimum.



TWO little lights say it all



The transmitter LED indicates whether:

- The unit is on
- The battery needs charging
- The unit is muted

The receiver LED indicates that:

- The receiver is on
- The transmitter and receiver are on the same channel
- The child is receiving stable FM input
- Battery supply OK



Bright and flexible receivers



- When using Amigo universal receivers (R1 or R2), the LED can be positioned so the light is visible from the back or the front.
- Most Amigo receivers' LEDs can be programmed to shine constantly, blink every two seconds, or not light up at all
- Amigo receivers can be programmed to wake up in the last channel used or in a default channel, to prevent accidental changes
- All of the receiver switches can be disabled if necessary

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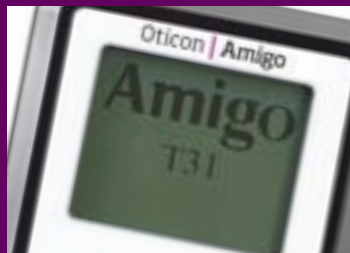
The keypad switches can tolerate 1,000,000 presses and are sealed with silicone rubber for high moisture resistance.



The rigid center frame protects Amigo's internal components. The molded rubber exterior ensures a safe grip, yet absorbs impact if dropped.



The microphone jack can tolerate 10,000 insertions.



The durable LCD shield is made of shatter-proof polycarbonate.

Teachers want solutions they can trust

System breakdowns can be tough for both teachers and students. That's why Amigo is built to last.

Classroom environments are tough enough without teachers and audiologists having to spend precious time on troubleshooting. Demanding school settings are no match for Amigo. From the exterior casing to the internal components, Amigo is the toughest FM solution ever made.

Amigo is built to:

- Withstand accidental dropping
- Repel moisture
- Offer fail-safe recharging

Why Amigo is so dependable

Accident-proof

Amigo FM transmitters that accidentally hit the floor are more than capable of surviving. The ultrasonic welding and molded rubber case create an extremely robust unit that is highly resilient to everyday classroom and tear.

Moisture repellent

The transmitter can safely come in contact with anything from finger paint to water or hot coffee.

Silicone-sealed buttons make it both moisture-resistant and easy to clean.

Fail-safe battery charging

The Amigo T30/T31 uses a single rechargeable AA NiMH battery that can be exchanged with a standard alkaline battery whenever necessary.



Meet the Amigo family

Amigo T31 transmitter



- Transmitter and programmer in one
- Fitting range ~ 1-20 inches
- Covers World Band FM: 169-177 MHz, 180-188 MHz and 216-218 MHz
- Bandwidth 8.5 kHz
- Digital Signal Processing

- External antenna built into microphone cord
- FM Channel Wizard
- Monitor FM channels
- Scan room for best FM channels
- Team Teaching function
- Software/channel updates via USB jack

- AA Standard NiMH batteries
- Fail safe charging sensor
- Keypad lock
- More than 10 hours of battery life
- One touch mute

Everyday use of Amigo



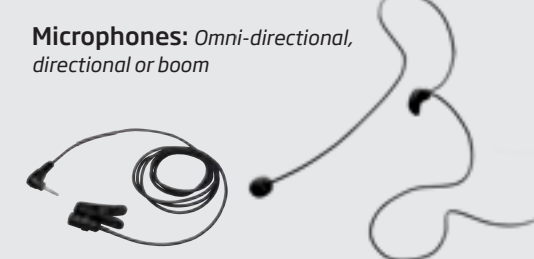
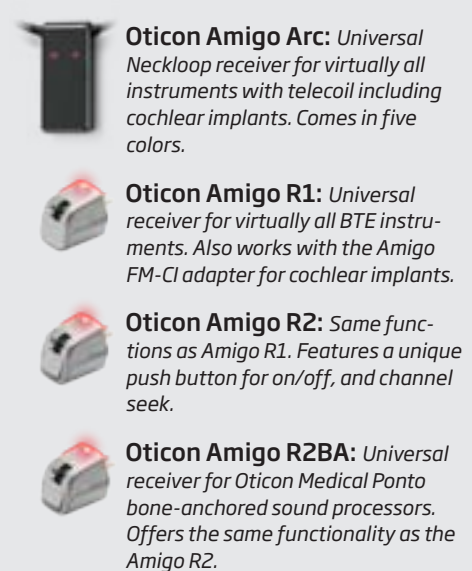
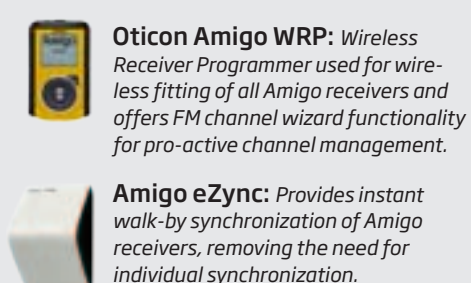
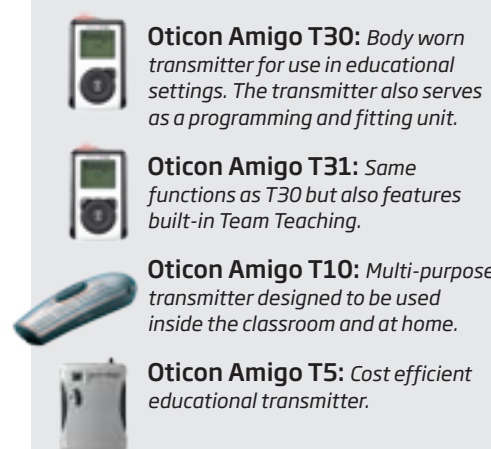
FM systems are also invaluable outside of school. While T30/T31 transmitters are designed to improve communication in educational situations, the portable, multifunction T10 transmitter is ideal for home use or for leisure activities. It can be handheld, placed on a table or worn around the neck.

Freedom to mix and match

Amigo solutions offer complete freedom to mix and match. FM receivers come in different styles - from clip-on, ear-level receivers to the attractive, Amigo Arc neckloop receiver - to fit each child's individual needs.

Being compatible with virtually all manufacturers' BTE instruments, Amigo universal receivers are ideal for growing children who regularly upgrade their instruments. Amigo receivers also work with all Amigo transmitters - plus most other brands of transmitters - to make life in the classroom easier.

The Amigo family



Wearing options: Belt clip, waist strap.

Skins: 10 colorful skins for all Amigo transmitters and the Amigo R5 receiver.



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Whether children wear hearing instruments, cochlear implants or bone-anchored devices, Amigo will be a trusty companion.

FM made friendly - for everyone!

When designing FM solutions we do our utmost to make sure that no child is left behind. Whether they wear hearing instruments, cochlear implants or bone anchored devices - or whether they have auditory processing difficulties and require extra support, they'll be able to benefit from Amigo solutions.

FM at school, at home - or anywhere else!

The benefits of FM don't end in the classroom. Portable solutions for outside of school are extremely easy for parents or other caregivers to use. In playgrounds, sports centers, buses or cars, these solutions provide consistent access to speech. So wherever children go, they won't feel left behind.



Supporting teachers and audiologists

By designing systems that are easy to use, easy to trust and easy to troubleshoot, Oticon strives to remove any obstacles that teachers might face when changing to a new solution. No matter which performance category they choose, Amigo will deliver day after day.

Educational materials, training and troubleshooting are also on our list of deliverables. We even offer extended service plans designed to meet the

diverse needs of large and small school systems, mainstream and self contained classrooms, and children of all ages.

All to help audiologists and teachers succeed in their daily efforts to help children cope with real life. With our combined efforts, children with hearing loss and auditory processing disorders have every chance of realizing their true potential!

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It takes a truly dedicated approach to help children with hearing problems achieve their full potential. That's why we deliver the solutions and services that professionals and caregivers need to provide children the opportunities they deserve. This is what child-friendly hearing care is all about.

