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FEDERAL COMMUNICATIONS COMMISSION  
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August 27, 2001

EX PARTE OR LATE FILED

**BY HAND DELIVERY**

Ms. Magalie Roman Salas  
Federal Communications Commission  
The Portals  
445 Twelfth Street, S.W.  
Washington, DC 20554

Re: ***Ex Parte Communication***  
*Establishment of Rules and Policies for the Satellite Digital Audio Radio Service*  
*in the 2310-2360 MHz Band, IB Docket No. 95-91* ✓

Dear Ms. Salas:

Attached hereto you will find a document e-mailed on August 25, 2001, to Ron Netro of the Commission's Wireless Telecommunications Bureau with regard to the above referenced proceeding. The document contains information on the frequency response characteristics of the Wireless Communications Service ("WCS") equipment being deployed by AT&T Wireless Services, Inc. ("AWS"). As explained in these materials, the first two plots relate to duplexers used in the base station equipment; because these duplexers work in tandem, the filtering effect is additive. The third plot relates to the duplexer used in the customer receiver unit.

As these materials show, AWS' WCS equipment does not tune across the entire 2305-2360 MHz band, including the portion used for SDARS. In fact, when additional passive and active filters in the equipment is considered in addition to the impact of the duplexers, both the base stations and the customer receiver units achieve at least 75 dB of rejection for signals outside of the WCS B block, in which the AWS equipment operates.

Respectfully submitted,

William M. Wiltshire  
Counsel for AT&T Wireless Services, Inc.

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DATE

**HARRIS, WILTSHIRE & GRANNIS LLP**

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cc: Ron Repasi  
Julius Knapp  
Ron Netro



**Subject: Duplexer Filters for the Base and RU.**

**Date: Aug 24, 2001**

This document is in response to a request by the FCC for a plot of the frequency response of the base and RU filters. The FWS uses the WCS frequency to both transmit and receive. A duplexer is required to prevent the transmitter from over powering the receiver.

For the FWS base station there is a single coax cable that carries both transmit and receive information to and from the antenna. On the top of the base station tower, just behind the antenna, there is a Low Noise Amplifier (LNA) contained in a cavity duplexer. This cavity duplexer is one solid piece of metal, but can be thought of as a pair of duplexers. These duplexers split the transmit and receive frequencies apart so the receive frequency can be amplified.

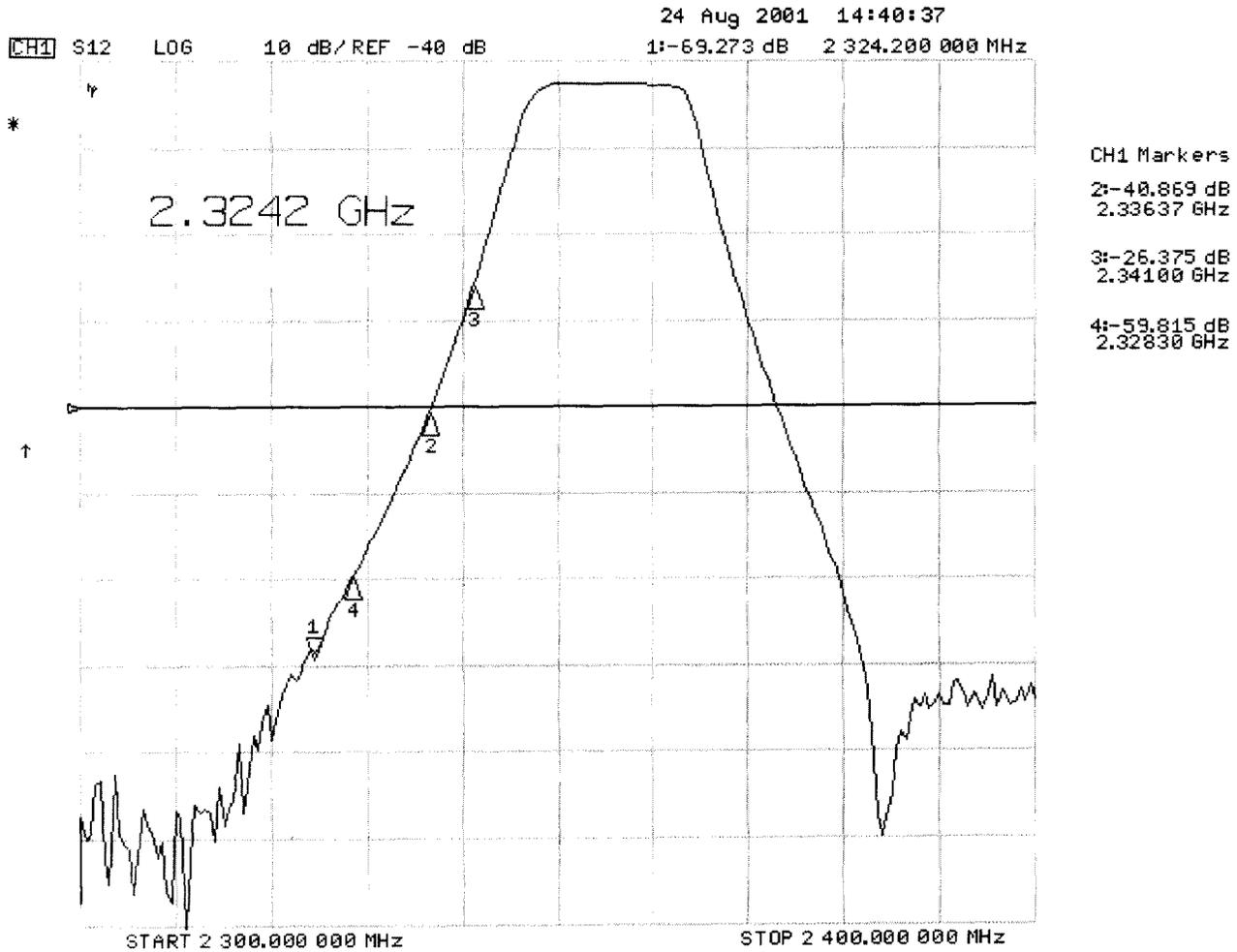
The plot below is the frequency response of the duplexer between the antenna port and the LNA in the tower top amplifier.





# System Architecture and Advanced Technologies

At the base station there is a second duplexer that splits the transmit and receive frequencies. Below is a plot of the base station duplexer.





# System Architecture and Advanced Technologies

The RU has a duplexer followed by an active filter. Below is the frequency response of the duplexer only.

