

**National Health and Nutrition  
Examination Survey 2003-2004**

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**Documentation, Codebook,  
and Frequencies**

**MEC Exam Component:  
Bioelectrical Impedance Analysis  
Examination Data**

**Survey Years:  
2003 to 2004**

**SAS Export File:  
BIX\_C.XPT**



February 2006

# NHANES 2003–2004 Data Documentation

## Exam Component: Bioelectrical Impedance Analysis (BIX\_C)

Years of Coverage: 2003–2004

First Published: February 2006

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### Component Description

Bioelectrical Impedance Analysis (BIA) measures the electrical impedance of body tissues and can be used to assess fluid volumes, total body water, and fat-free body mass. The NHANES BIA measurements were collected as part of the Body Composition Component together with dual energy x-ray absorptiometry (DXA) scans in the Mobile Examination Center (MEC). A small alternating current was passed through surface electrodes placed on the right hand and foot and the impedance to the current flow was measured by different electrodes placed adjacent to the injection electrodes. The voltage drop between electrodes provided a measure of impedance, or opposition to the flow of the electric current.

BIA measurements include:

BIAEXSTS – status of the BIA examination

BIAOBJ – all jewelry, eyeglasses, hair ornaments, and other objects removed

BIXS005K-BIXS1M – 50 resistance values from 5 KHz to 1 MHz

BIXC005K-BIXC1M – 50 reactance values from 5 KHz to 1 MHz

BIDFIT – an indicator of BIA data quality

### Eligible Sample

Individuals aged 8–49 years who met any of the following exclusion criteria were not eligible for the BIA component:

Pregnancy

Amputations other than fingers or toes

Artificial joints, pins, plates, or other types of metal objects in the body

Pacemaker or automatic defibrillator

Coronary stents or metal suture material in the heart

Weight over 300 pounds (limitation for examination table) or height over 6'5"

The examination status of ineligible individuals was coded as “Not Done.” Other reasons for a “Not Done” status included no time for the examination, pregnancy test not completed, participant refusal, equipment failure, and questionable or bad data.

## **Protocol and Procedure**

The BIA data were collected with a HYDRA ECF/ICF Bio-Impedance Spectrum Analyzer (Model 4200) manufactured by Xitron Technologies, Inc., San Diego, CA. The multi-frequency analyzer uses a full 12-bit digital signal processing technique to measure impedance at 50 frequencies logarithmically spaced from 5 KHz to 1 MHz (1).

The BIA and DXA examinations were conducted in the same room. DXA was measured first, followed by BIA. Both examinations were conducted by trained health technicians, who were also responsible for BIA quality control procedures. The examination protocol, which includes the QA/QC procedures, is fully documented in the **Body Composition Procedures Manual** on the NHANES website.

For the procedures relevant to this component, please see the **Survey Operations Manual, Consent Documents, Brochures** on the NHANES website.

## **Quality Assurance & Quality Control**

Each time the BIA machine was turned on, it performed an automatic internal circuitry self-check that indicated if the machine was out of calibration or had a fault. An electronic verification module was used to complete weekly circuit testing. The **Body Composition Procedures Manual** details the BIA quality control tests performed.

Experienced trainers, NCHS staff, and contractor staff monitored health technician performance in the field. Retraining sessions were conducted with the technicians periodically and annually to reinforce the proper protocols and technique.

The **Interviewer Procedures Manual** is not relevant to this component.

## **Data Processing and Editing**

The quality of the collected raw frequency data was evaluated through an external modeling program provided by Xitron Technologies, Inc. (1). The Hydra ECF/ICF measures resistance (R) and reactance (X) and calculates the reciprocal impedance (Z) and phase angle ( $\theta$ ) at each measured frequency. The Z and  $\theta$  spectra data were fit to the Cole-Cole model (2) using iterative non-linear curve-fitting software (3). The modeling program evaluates the weighted least-square error of both Z and  $\theta$ , where the weighting is established by the published accuracy specifications of the machine and removes any frequency that would significantly decrease the total weighted least-square error. The

expected accuracy at each measured frequency is established as a pair of arrays ( $Z$  and  $\theta$ ) at the start of the modeling function. The error ratio is then established at each modeling point by dividing the modeling error by the corresponding stored array errors. In addition to the correlation of fit using scalar  $Z$ , the program established the accuracy of data fit to the model. The BDFIT variable provides the following codes for the accuracy of the fit:

0 = Excellent fit to model	3 = Questionable fit to model
1 = Good fit to model	4 = Bad fit to model
2 = Marginal fit to model	

If the data did not conform to the theoretical model, it was due to either an extreme biological deviation in the subject measured or poor measurement quality control (1). When less than 25% of the frequencies were beyond a very high characteristic frequency ( $F_c$ ), the program rated the fit as "Marginal." When less than 10% of the frequencies were beyond  $F_c$ , the modeling program rated the fit as "Questionable." When less than 2% of the frequencies were beyond  $F_c$ , the program rated the fit as "Bad."

The modeling program was not used to conduct data analyses or to calculate estimates, but simply to determine the quality of the data as one step in the quality assurance process. Whenever the fit of the data was questionable or worse, the observations were excluded from the release dataset. The status of individuals with a BDFIT value of 3 or 4 was coded as "Not Done."

## **Analytic Notes**

Before beginning analysis, users are advised to review the BDFIT values to identify the quality of the data to be analyzed.

No data related to this component are in the Research Data Center.

## **References**

1. HYDRA ECF/ICF Bio-Impedance Spectrum Analyzer (Model 4200). Operating Manual, Revision 1.01. Xitron Technologies, Inc., San Diego, CA.
2. Cole KS. Membranes, Ions, and Impulses. Berkeley, CA: University of California Press; 1972.
3. De Lorenzo A, Andreoli A, Matthie J, and Withers P. Predicting body

cell mass with bioimpedance using theoretical methods: a technologic review. *J Appl Physiol.* 1997;82(5):1542–1558.

## Locator Record

**Title:** Bioelectrical Impedance Analysis (BIX)

**Contact Number:** 1-866-441-NCHS

**Years of Content:** 2003–2004

**First Published:** February 2006

**Revised:** N/A

**Access Constraints:** None

**Use Constraints:** None

**Geographic Coverage:** National

**Subject:** Body composition: bioelectrical impedance analysis

**Record Source:** NHANES 2003–2004

**Survey Methodology:** NHANES 2003–2004 is a stratified multistage probability sample of the civilian non-institutionalized population of the U.S.

**Medium:** NHANES Web site; SAS transport files

**National Health and Nutrition Examination Survey  
Codebook for Data Production (2003-2004)**

**MEC Examination  
Bioelectrical Impedance Analysis (BIX\_C)  
Person Level Data**

February 2006



<b>SEQN</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Respondent sequence number
<b>English Text:</b> Respondent sequence number.	
<b>English Instructions:</b>	



<b>BIAEXLEN</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	BIA Time in Seconds

**English Text:** BIA Time in Seconds

**English Instructions:**

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0 to 721	Range of Values	4588	4588	
.	Missing	741	5329	

<b>BIAEXSTS</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	BIA Status			
<b>English Text:</b> BIA Status				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
1	Complete	4204	4204	
2	Partial	0	4204	
3	Not done	1125	5329	
.	Missing	0	5329	

<b>BIAOBJ</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Removed jewelry, other objects?			
<b>English Text:</b> Has SP removed all jewelry, eyeglasses, hair ornaments, and other objects from the hair and body?				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
1	Yes	4263	4263	
2	No, exclude	12	4275	
3	No, ok to continue	335	4610	
9	Don't know	1	4611	
.	Missing	718	5329	

<b>BIDFIT</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Quality of Fit of Cole-Cole Model			
<b>English Text:</b> Quality of Fit of Cole-Cole Model				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	Excellent	4008	4008	
1	Good	70	4078	
2	Marginal	126	4204	
.	Missing	1125	5329	

<b>BIXS005K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 5 KHz			
<b>English Text:</b> Resistance (Ohms) @ 5 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
380.55 to 988.94	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS006K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 6 KHz			
<b>English Text:</b> Resistance (Ohms) @ 6 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
378.25 to 987.13	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS007K</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Resistance (Ohms) @ 7 KHz
<b>English Text:</b> Resistance (Ohms) @ 7 KHz	
<b>English Instructions:</b>	

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
376.69 to 986.12	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS008K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 8 KHz			
<b>English Text:</b> Resistance (Ohms) @ 8 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
374.42 to 983.56	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXS009K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 9 KHz			
<b>English Text:</b> Resistance (Ohms) @ 9 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
372.24 to 981.43	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS010K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 10 KHz			
<b>English Text:</b> Resistance (Ohms) @ 10 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
370.17 to 979.06	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS011K</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Resistance (Ohms) @ 11 KHz
<b>English Text:</b> Resistance (Ohms) @ 11 KHz	
<b>English Instructions:</b>	

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
368.53 to 977.48	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS012K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 12 KHz			
<b>English Text:</b> Resistance (Ohms) @ 12 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
366.67 to 975.49	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS013K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 13 KHz			
<b>English Text:</b> Resistance (Ohms) @ 13 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
364.61 to 973.87	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS014K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 14 KHz			
<b>English Text:</b> Resistance (Ohms) @ 14 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
362.42 to 972.08	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS015K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 15 KHz			
<b>English Text:</b> Resistance (Ohms) @ 15 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
359.91 to 970.29	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS016K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 16 KHz			
<b>English Text:</b> Resistance (Ohms) @ 16 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
357.63 to 968.71	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXS018K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 18 KHz			
<b>English Text:</b> Resistance (Ohms) @ 18 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
353.29 to 965.19	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS020K</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Resistance (Ohms) @ 20 KHz
<b>English Text:</b> Resistance (Ohms) @ 20 KHz	
<b>English Instructions:</b>	

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
349.78 to 961.63	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS023K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 23 KHz			
<b>English Text:</b> Resistance (Ohms) @ 23 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
344.54 to 956.33	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS025K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 25 KHz			
<b>English Text:</b> Resistance (Ohms) @ 25 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
341.74 to 952.56	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS028K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 28 KHz			
<b>English Text:</b> Resistance (Ohms) @ 28 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
337.61 to 947.63	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS031K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 31 KHz			
<b>English Text:</b> Resistance (Ohms) @ 31 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
333.69 to 942.98	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS035K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 35 KHz			
<b>English Text:</b> Resistance (Ohms) @ 35 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
329.05 to 937.44	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS039K</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Resistance (Ohms) @ 39 KHz
<b>English Text:</b> Resistance (Ohms) @ 39 KHz	
<b>English Instructions:</b>	

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
325.01 to 931.91	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXS043K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 43 KHz			
<b>English Text:</b> Resistance (Ohms) @ 43 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
321.51 to 926.97	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS050K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 50 KHz			
<b>English Text:</b> Resistance (Ohms) @ 50 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
316.05 to 918.76	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS054K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 54 KHz			
<b>English Text:</b> Resistance (Ohms) @ 54 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
313.35 to 914.83	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS060K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 60 KHz			
<b>English Text:</b> Resistance (Ohms) @ 60 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
309.74 to 909.74	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS067K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 67 KHz			
<b>English Text:</b> Resistance (Ohms) @ 67 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
305.97 to 904.97	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS075K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 75 KHz			
<b>English Text:</b> Resistance (Ohms) @ 75 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
302.28 to 899.91	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS083K</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Resistance (Ohms) @ 83 KHz

**English Text:** Resistance (Ohms) @ 83 KHz

**English Instructions:**

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
299.1 to 895.47	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS093K</b>	<b>Target</b>
	B(8 Yrs. to 49 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Resistance (Ohms) @ 93 KHz
<b>English Text:</b> Resistance (Ohms) @ 93 KHz	
<b>English Instructions:</b>	

<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
295.79 to 890.88	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXS100K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 100 KHz			
<b>English Text:</b> Resistance (Ohms) @ 100 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
293.94 to 887.88	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS115K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 115 KHz			
<b>English Text:</b> Resistance (Ohms) @ 115 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
290.32 to 881.41	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS128K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 128 KHz			
<b>English Text:</b> Resistance (Ohms) @ 128 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
287.8 to 876.63	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS143K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 143 KHz			
<b>English Text:</b> Resistance (Ohms) @ 143 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
285.41 to 872.49	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS159K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 159 KHz			
<b>English Text:</b> Resistance (Ohms) @ 159 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
283.28 to 868.49	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS177K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 177 KHz			
<b>English Text:</b> Resistance (Ohms) @ 177 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
280.99 to 864.39	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS200K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 200 KHz			
<b>English Text:</b> Resistance (Ohms) @ 200 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
278.53 to 860.2	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS220K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 220 KHz			
<b>English Text:</b> Resistance (Ohms) @ 220 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
276.76 to 856.56	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXS245K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 245 KHz			
<b>English Text:</b> Resistance (Ohms) @ 245 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
275.06 to 852.64	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS273K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 273 KHz			
<b>English Text:</b> Resistance (Ohms) @ 273 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
273.51 to 848.18	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS304K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 304 KHz			
<b>English Text:</b> Resistance (Ohms) @ 304 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
272.09 to 843.93	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS339K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 339 KHz			
<b>English Text:</b> Resistance (Ohms) @ 339 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
270.59 to 840.2	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS378K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 378 KHz			
<b>English Text:</b> Resistance (Ohms) @ 378 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
269.12 to 836.89	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS421K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 421 KHz			
<b>English Text:</b> Resistance (Ohms) @ 421 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
267.78 to 833.53	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS469K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 469 KHz			
<b>English Text:</b> Resistance (Ohms) @ 469 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
266.53 to 830.01	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS500K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 500 KHz			
<b>English Text:</b> Resistance (Ohms) @ 500 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
265.61 to 828.05	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXS582K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 582 KHz			
<b>English Text:</b> Resistance (Ohms) @ 582 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
264.37 to 824.26	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS649K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 649 KHz			
<b>English Text:</b> Resistance (Ohms) @ 649 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
263.45 to 821.27	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS723K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 723 KHz			
<b>English Text:</b> Resistance (Ohms) @ 723 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
262.56 to 818.21	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS806K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 806 KHz			
<b>English Text:</b> Resistance (Ohms) @ 806 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
261.79 to 814.93	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS898K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 898 KHz			
<b>English Text:</b> Resistance (Ohms) @ 898 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
261.2 to 811.86	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXS1M</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Resistance (Ohms) @ 1 MHz			
<b>English Text:</b> Resistance (Ohms) @ 1 MHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
260.31 to 807.92	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC005K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 5 KHz			
<b>English Text:</b> Reactance (Ohms) @ 5 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
13.17 to 68.8	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC006K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 6 KHz			
<b>English Text:</b> Reactance (Ohms) @ 6 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
12.79 to 91.83	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXC007K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 7 KHz			
<b>English Text:</b> Reactance (Ohms) @ 7 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
14.9 to 75.35	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC008K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 8 KHz			
<b>English Text:</b> Reactance (Ohms) @ 8 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
15.62 to 81.75	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC009K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 9 KHz			
<b>English Text:</b> Reactance (Ohms) @ 9 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
16.31 to 81.61	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC010K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 10 KHz			
<b>English Text:</b> Reactance (Ohms) @ 10 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
17.22 to 83.31	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC011K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 11 KHz			
<b>English Text:</b> Reactance (Ohms) @ 11 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
18.04 to 84.83	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC012K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 12 KHz			
<b>English Text:</b> Reactance (Ohms) @ 12 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
18.74 to 86.15	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC013K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 13 KHz			
<b>English Text:</b> Reactance (Ohms) @ 13 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
19.24 to 87.1	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC014K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 14 KHz			
<b>English Text:</b> Reactance (Ohms) @ 14 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
20.16 to 87.99	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXC015K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 15 KHz			
<b>English Text:</b> Reactance (Ohms) @ 15 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
20.75 to 88.16	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC016K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 16 KHz			
<b>English Text:</b> Reactance (Ohms) @ 16 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
21.34 to 88.79	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC018K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 18 KHz			
<b>English Text:</b> Reactance (Ohms) @ 18 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
22.41 to 91.65	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC020K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 20 KHz			
<b>English Text:</b> Reactance (Ohms) @ 20 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
23.59 to 94.23	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC023K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 23 KHz			
<b>English Text:</b> Reactance (Ohms) @ 23 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
24.94 to 97.31	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC025K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 25 KHz			
<b>English Text:</b> Reactance (Ohms) @ 25 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
25.71 to 98.79	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC028K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 28 KHz			
<b>English Text:</b> Reactance (Ohms) @ 28 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
26.75 to 100.56	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC031K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 31 KHz			
<b>English Text:</b> Reactance (Ohms) @ 31 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
27.88 to 101.78	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXC035K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 35 KHz			
<b>English Text:</b> Reactance (Ohms) @ 35 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
29.1 to 102.32	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC039K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 39 KHz			
<b>English Text:</b> Reactance (Ohms) @ 39 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
30.07 to 103.76	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC043K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 43 KHz			
<b>English Text:</b> Reactance (Ohms) @ 43 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
30.76 to 104.84	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC050K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 50 KHz			
<b>English Text:</b> Reactance (Ohms) @ 50 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
31.98 to 105.92	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC054K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 54 KHz			
<b>English Text:</b> Reactance (Ohms) @ 54 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
32.28 to 106.19	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC060K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 60 KHz			
<b>English Text:</b> Reactance (Ohms) @ 60 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
32.93 to 106.32	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC067K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 67 KHz			
<b>English Text:</b> Reactance (Ohms) @ 67 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
33.47 to 105.92	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC075K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 75 KHz			
<b>English Text:</b> Reactance (Ohms) @ 75 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
34 to 105.3	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXC083K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 83 KHz			
<b>English Text:</b> Reactance (Ohms) @ 83 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
34.23 to 104.52	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC093K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 93 KHz			
<b>English Text:</b> Reactance (Ohms) @ 93 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
34.01 to 103.3	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC100K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 100 KHz			
<b>English Text:</b> Reactance (Ohms) @ 100 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
33.35 to 102.34	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC115K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 115 KHz			
<b>English Text:</b> Reactance (Ohms) @ 115 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
32.28 to 100.63	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC128K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 128 KHz			
<b>English Text:</b> Reactance (Ohms) @ 128 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
31.37 to 99.14	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC143K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 143 KHz			
<b>English Text:</b> Reactance (Ohms) @ 143 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
30.47 to 97.1	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC159K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 159 KHz			
<b>English Text:</b> Reactance (Ohms) @ 159 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
29.45 to 95.29	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC177K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 177 KHz			
<b>English Text:</b> Reactance (Ohms) @ 177 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
28.38 to 93.38	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXC200K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 200 KHz			
<b>English Text:</b> Reactance (Ohms) @ 200 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
27.26 to 91.15	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC220K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 220 KHz			
<b>English Text:</b> Reactance (Ohms) @ 220 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
26.31 to 89.25	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC245K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 245 KHz			
<b>English Text:</b> Reactance (Ohms) @ 245 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
25.24 to 87.22	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC273K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 273 KHz			
<b>English Text:</b> Reactance (Ohms) @ 273 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
24.2 to 86.76	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC304K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 304 KHz			
<b>English Text:</b> Reactance (Ohms) @ 304 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
23.23 to 87.02	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC339K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 339 KHz			
<b>English Text:</b> Reactance (Ohms) @ 339 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
22.21 to 87.42	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC378K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 378 KHz			
<b>English Text:</b> Reactance (Ohms) @ 378 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
21.22 to 88.96	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC421K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 421 KHz			
<b>English Text:</b> Reactance (Ohms) @ 421 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
20.2 to 90.72	Range of Values	4204	4204	
.	Missing	1125	5329	



<b>BIXC469K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 469 KHz			
<b>English Text:</b> Reactance (Ohms) @ 469 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
19.18 to 92.97	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC500K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 500 KHz			
<b>English Text:</b> Reactance (Ohms) @ 500 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
18.6 to 94.34	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC582K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 582 KHz			
<b>English Text:</b> Reactance (Ohms) @ 582 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
17.55 to 98.34	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC649K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 649 KHz			
<b>English Text:</b> Reactance (Ohms) @ 649 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
16.56 to 101.5	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC723K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 723 KHz			
<b>English Text:</b> Reactance (Ohms) @ 723 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
15.7 to 105.14	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC806K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 806 KHz			
<b>English Text:</b> Reactance (Ohms) @ 806 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
14.84 to 109.19	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC898K</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 898 KHz			
<b>English Text:</b> Reactance (Ohms) @ 898 KHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
14.1 to 114.55	Range of Values	4204	4204	
.	Missing	1125	5329	

<b>BIXC1M</b>	<b>Target</b>			
	B(8 Yrs. to 49 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	Reactance (Ohms) @ 1 MHz			
<b>English Text:</b> Reactance (Ohms) @ 1 MHz				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
13.35 to 123.97	Range of Values	4204	4204	
.	Missing	1125	5329	